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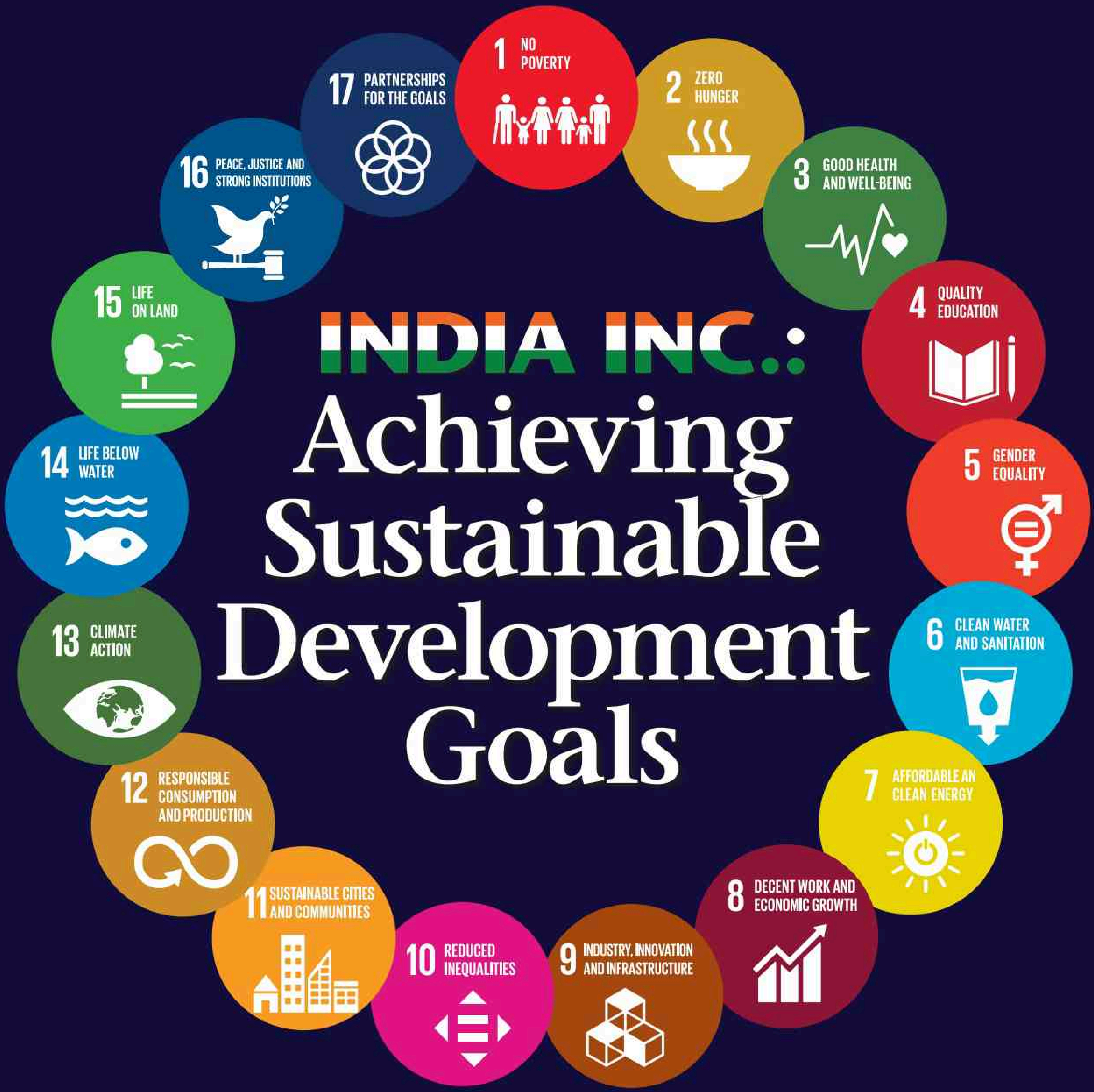
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INDIA INC.: Achieving Sustainable Development Goals

CSR SPECIAL ISSUE

VISIT…

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Editorial & Administration Office: Nirmal, 14th floor, Nariman Point, Mumbai 400021. Tel: 22852943 Fax: 22883940
Email: editorial@businessindiagroup.com

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Email: advertising@businessindiagroup.com.

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Bangalore: 27 Wellington Street, Richmond Town, Bangalore 560 025, Tel: 080-22102444

Kolkata: Krishna Villa, 100 Park Street, Kolkata 700017. Tel: 22893359

Delhi: 268 Masjid Moth, Uday Park, New Delhi 110049, Tel: 011-41643052 / 41643050 / 41640109 / 41086415

Hyderabad: Pent House II, Usha Deluxe Apartments, Motilal Nehru Nagar, Begumpet, Hyderabad 500016

Chennai: Prasad Chambers, III Floor, Flat No. 14, Door No. 97A, Peters Road, Gopalapuram , Chennai 600 086. Tel: 044 28351703 / 28353964 / 28353394

Kochi: DRA-6, Mahila Samajam Nursery Road, Chaliakkavattom, Dhanya Junction, Vennala P.O. Kochi 682028. M: 9846091797

Lucknow: Sunshine House, 9/11 (M.N.H.S), Sector 9, Vikas Nagar, Lucknow-226022 Tel : 0522-6565222/ M: 09415180290.

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Business India

We are very happy to be back with our annual CSR special issue, which we had to miss during the pandemic.

The focus this year is on the UN Sustainable Development Goals (SDGs). And for this year's issue we are fortunate to have worked with two organisations in the field. First, the UN Global Compact (UNGC) office in India, as our Knowledge Partner, who introduced us to their network of leading global experts and committed corporations. The second is Bangalore-based Sattva, a consulting company wholly devoted to CSR who acted as our Research Partner. Also, we are very grateful to our Consulting Editor, Dr Shashank Shah, who has been with us from the first CSR special issue. In the last four years, he has led three CSR special issues – each of these collector's editions. Shashank has the rare ability to focus single-mindedly on larger issues yet look at every small detail. Fortunately, he was able to complete this issue before joining a prestigious assignment with Niti Aayog.

On 1 January 2016, the 17 SDGs of the 2030 Agenda for Sustainable Development, which were adopted by world leaders in September 2015, officially came into force. These goals aim to end all forms of poverty and are a blueprint for a better and more sustainable future for all. These goals call for action by all countries, poor and rich, to promote prosperity while preserving the planet. Ending poverty depends on strategies that promote economic growth and also address a range of social needs including education, health, and job opportunities while tackling climate change and protecting the environment.

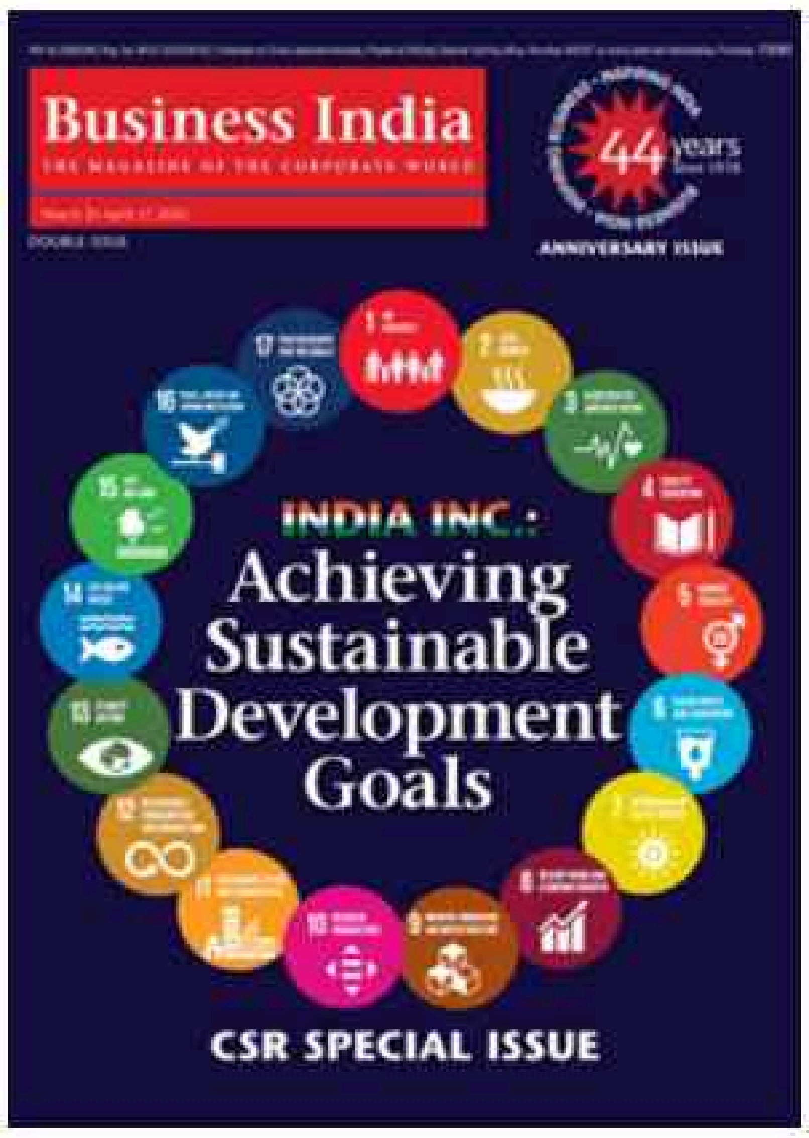
Many Indian CEOs, of big and small companies, have wholeheartedly embraced SDGs. Several have aligned their CSR activities to one or more SDGs. Others have gone further, making them part of their strategic thinking, not just for CSR, but for their normal business operations too. And purpose-driven organisations have adopted one or more SDGs as part of their goals. They believe that there are risks not only to the country but directly to their companies if India does not achieve the SDG goals.

In this special issue we highlight how many corporates are working both with NGOs and government bodies to help achieve SDGs. We have CEOs, national and international subject experts, and policy makers writing columns on their thoughts and experiences. We also have stories on the activities of several companies working towards the SDGs. Naturally, we can only highlight a select few stories. There are hundreds of companies doing very good work whose stories need to be told in the near future.

Obviously we cannot achieve all this in just a few years. Progress can be slow, and there will be setbacks. But as we work towards these achievable goals, things will only start getting better. A healthier, better educated, and better trained people are all a must for the country's progress.

Achieving these goals will ensure that India is a wonderfully liveable country.

Ashok H. Advani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This issue has been brought out by:

LEAD EDITOR:	Arul Thuthi
SUB EDITORS:	Kayus Wadia, Jayakumar Menon
LAYOUTS & PRODUCTION:	Mathew Thomas

Credits:

I. United Nations Global Compact (Knowledge Partner):
1. Tamanna Giridhar, 2. Panchali Sharma

II. Sattva (Research Partner)
A. Data Stories: Parnika Madar, Veda Kulkarni, Danish Khan and Divya Sundar
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III. Business India: Amartya Awasthi, Climate Change Specialist

LETTER FROM THE EDITOR

After the success of two CSR special issues that have been immensely appreciated as collector's editions - '*The Art of Giving*' (2018) and '*CSR and more*' (2019), I am delighted to present this third special issue on the United Nations Sustainable Development Goals (UNSDGs). A pioneering publication on this theme, this issue captures the ideas and endeavours of India Inc. in aligning their priorities and projects with any and many of the 17 UNSDGs.

In the last decade, the understanding of corporate responsibility the world over has transitioned from philanthropy to multi-stakeholder value creation. The year 2021 also marked the beginning of the 'Decade of Action' towards UNSDGs. While nations look at them as an opportunity to align local programmes with global imperatives, corporations espouse them as part of their larger responsibility and sustainability mandate.

This special issue is celebrating CSR initiatives and inclusive business strategies of Indian corporations and social enterprises, for playing a transformative role in their sectors and industries. The issue covers all 17 UNSDGs that cover four broad areas:
Social Goals: 1, 2, 3, 4, 5 and 6
Economic Goals: 7, 8, 9, 10 and 11
Environmental Goals: 12, 13, 14 and 15
Governance Goals: 16 and 17

Dr Shashank Shah,
Visiting scholar'17
Harvard Business School

The progress on the achievement of *Social Goals* has been studied from the lens of non-profit CSR activities as per the Indian Companies Act 2013. The progress on the *Economic* and *Environmental Goals* has been captured through product, service, and process innovations that create value for several stakeholders while also providing financial benefits to the company. *Governance Goals* have been conveyed through collaboration of companies with like-minded institutions to mutually enable achievement of SDGs.

To provide a comprehensive overview as well as a deep dive, each of the 17 SDGs has been divided into three sections. The first is a snapshot about the SDG that provides a quick overview to the major targets, grassroot challenges, government interventions, and CSR contributions. The second section presents the views of global scholars, subject experts, policy makers, and corporate leaders on the specific SDG. Each of them has underscored the primacies and shared innovative ways in which the SDG targets could be achieved by 2030. The final section under each SDG features select firms and their initiatives in that SDG along with broad objectives, implementation model, funding and challenges, innovations, outputs, outcomes, impact, and plans for scaling up.

To ensure a fair representation we embarked on a six-month-long primary data collection endeavour that covered over 750 leading companies pan-India. Of these, around 75 companies have been showcased in this issue along with 50+ thought leaders. While scores of companies are doing noteworthy work in several SDGs, we have limited our focus on those that participated in our primary data collection exercise. Moreover, 150+ companies and their pioneering work in many areas has already been featured in earlier CSR special issues. Hence, many popular projects may not have found a mention in this issue. An attempt has been made to balance well-known players with lesser-known entities, while also balancing geographies, and demographics. The undercurrent throughout the issue has been to explore ways in which the good work could be scaled up and even replicated to achieve inclusive and sustainable growth across sectors.

In this endeavour, two partner institutions have played a very valuable role. The United Nations Global Compact India (UNGCI) was our Knowledge Partner. Led by the late Shabnam Siddiqui, the dynamic Executive Director, the UNGCI Team introduced us to their global network of SDG experts and to several committed corporations that have strategically aligned their business with SDGs in unique and diverse ways. Sattva Consulting was our Research Partner. Under the enthusiastic leadership of Meera Harish, Partner, the Sattva Team provided us valuable data inputs through their India Insights platform, and also connected us with high-impact enterprises working in this space.

True to the vision of *Business India* of being a magazine with a purpose that is committed to the future, this special issue is a pathbreaking effort in mainstreaming the discussion on the contribution of India Inc. in achieving the UNSDGs, highlighting implementable ideas for creating impact at scale, and underscoring the vital role of collaboration between business, government, and society to ensure that we can save our only world for ourselves, and also preserve it for posterity.

January 26, 2022

Saving our only world

Else we may not survive to the 22nd century…

On September 13, 1970, Milton Friedman, wrote his celebrated article in the New York Times titled '*The Social Responsibility of Business is to Increase its Profits*'. Half a decade later, he was awarded the prestigious Nobel Prize in Economic Sciences. But his paradigm of '*The business of business is business*' continued to dominate the corporate scenario for four decades. The doctrine of 'shareholder primacy' became the Mantra in Corporate America and inspired developing economies across the globe to align corporate priorities solely with profit-making. So strong was the influence of the primacy of shareholder wealth maximisation in the corridors of leading American Corporations that nearly a quarter century later, in 1997, the Business Roundtable (BRT), an influential association of 200 leading CEOs of American Corporations defined the purpose of a corporation as: *"The paramount duty of management and of boards of directors is to the corporation's stockholders. The interests of other stakeholders are relevant as a derivative of the duty to stockholders."*

New Purpose of Corporation

Interestingly, in the last quarter of 2019, the BRT, announced a new purpose for the corporation, a 300-word statement that focuses on five key stakeholders that should be the priority of every American Corporation for the future success of companies, communities, and the country. These five stakeholders and corporations' commitment to them include:

- Delivering value to customers
- Investing in employees
- Dealing fairly and ethically with suppliers
- Supporting the communities
- Generating long-term value for shareholders

For those who closely follow management thought in the West, this is an unprecedented development. The dominant capitalist thought has mostly prioritised profits over purpose, people, or the planet. However, this new version by BRT aims at 'promoting an economy that serves all Americans'. This did not happen overnight. The scenario of the fortunate few and the miserable many has been an increasingly dominant development across nations in the decades post World War II. The phenomenal growth in the number and size of industrial enterprises at national and multinational levels brought to the fore contentious issues of environmental degradation and human inequities. In the form of 'solutions' came several international initiatives. An observer at the ILO, stated that 400 such codes and agreements exist across the world. Though the issues covered in them are similar, there are differences in language and focus due to the time, place, and circumstances under which they were proposed. The significant ones among these have been chronologically listed here. *(see table)*

Thus, multifarious policy documents have been proposed by countries across the globe focusing on how corporate organisations can and should be more inclusive in their business approach.

Historical Context

In fact, the notion that there is a limit for the total 'carrying capacity' of the earth is old. During the 19th century, Thomas Malthus formulated it with emphasis. The idea of sustainability was born from the confrontation of two trends of thought regarding global issues – one which claimed the priority of development, and another that claimed the safeguarding of environment. It was soon realised that sustainable development would not be possible without certain social and economic changes such as reduction in poverty levels and greater social equity between people and nations, and that environmental protection and economic development were complementary rather than antagonistic processes.

In the decade when Milton Friedman gave his call for 'business of business is business', scholars realised that development in the conventional sense could not be sustained for long, given the reckless consumption of non-renewable resources. So, they added an adjective to the already confused term of 'development' and termed it as 'Sustainable Development'. After four decades, during which governments and multilateral institutions repeatedly underscored

Initiative/Agreement	Year / Period
1. UN Conference on the Human Environment	1972
2. The Cocoyoc Declaration	1974
3. The World Conservation Strategy	1980
4. The Global 2000 Report	1981
5. The Montreal Protocol	1987
6. World Business Council for Sustainable Development	1991
7. The Rio Earth Summit	1992
8. The UN Framework Convention on Climate Change	1992
9. The Caux Round Table: Principles of Business	1994
10. The Principles of Global Corporate Responsibility	1995
11. The Kyoto Protocol	1997
12. Social Accountability 8000 (SA 8000)	1998
13. Global Sullivan Principles	1999
14. Global Reporting Initiative (GRI)	1999
15. OECD Guidelines for Multinational Enterprises	2000
16. The Millennium Development Goals (MDGs)	2000
17. The UN Global Compact	2000
18. The Green Paper of the European Commission	2001
19. The World Summit on Sustainable Development	2002
20. Environmental Performance Index (EPI)	2002
21. Amsterdam Global Conferences on Sustainability and Transparency	2006-2013
22. UN Climate Change Conference (Copenhagen Summit)	2009
23. Guidelines for Social Responsibility – ISO 26000	2010

the need for corporations to espouse a new approach, corporate captains too started asking fundamental questions about how well 'capitalism' had served society at large. Especially, post the 2008 financial crisis, which witnessed 'privatisation of profits and socialisation of losses'. The 'Occupy Wall Street' Movement that grabbed global attention was an outcome of this inconvenient truth. In the same year, Bill Gates, while addressing the World Economic Forum at Davos, in his last year as Chairman of Microsoft, spoke of 'Creative Capitalism'. This became a trend and was followed by a series of new versions of capitalism, with an innovative adjective. In 2013, John Mackey, then CEO of Whole Foods, co-authored a book 'Conscious Capitalism'. In subsequent years, 'Compassionate Capitalism', 'Inclusive Capitalism', 'Sustaining Capitalism' and more terms emerged. Why was capitalism in need of an image makeover? Did it need a new definition for its continued existence?

Unprecedented Challenges

The scale and influence of corporations can be gauged from the fact that 72 of the 100 largest economies of the world in 2020 were corporations. Hence some of the most daunting challenges that the planet is collectively facing would remain unresolved without their proactive participation. Here is a sample of statistics across sectors:

- 84.4 crore people globally are living without access to clean water, while a staggering 230 crore are without access to a decent toilet.
- 77 crore people still live without access to electricity, primarily in Africa and parts of Asia. Despite positive developments, two-thirds of India's rural population and two-fifths of its urban population face power outages at least once a day.
- Nearly 40 per cent of food produced in India gets wasted even before it reaches the consumer. In monetary terms, this amounts to a loss of ₹1,00,000 crore.
- Disparity in access to housing in India is visible when 1.3 crore households live in slums even as 1.1 crore houses remain vacant.
- Oil remains a major component of the global energy mix with global demand for oil at 92.8 million barrels/day. The automobile sector has been the primary guzzler of oil with nearly 480 crore cars on the road. If 100 per cent of the vehicles sold were electric starting today, it will still take 25 years to replace the entire fleet. Hence, according to IEA, demand for oil will plateau, not decline, by 2040.
- Consequently, greenhouse gas concentrations are at their highest levels in 20 lakh years. NASA indicated that 2020 was the hottest year on record, when Greenland lost 152 gigatons (60.8 crore Olympic-sized swimming pools) of ice, added to our oceans. If the entire ice sheet of Greenland thaws, it could add 20 feet to the height of global seas leading to 11 megacities going under water including Jakarta, Manila, Shanghai, Tokyo, Los Angeles, San Francisco, New York, London, Mumbai, and Kolkata. For disbelievers in the impact of climate change, the last two years have been an eye opener. Forest fires in Amazon, Australia and Siberia, once-in-a-millennium kind of floods in Europe, unprecedented heat wave in North America, and the costliest cyclone – Amphan, in South Asia. No continent has been spared!

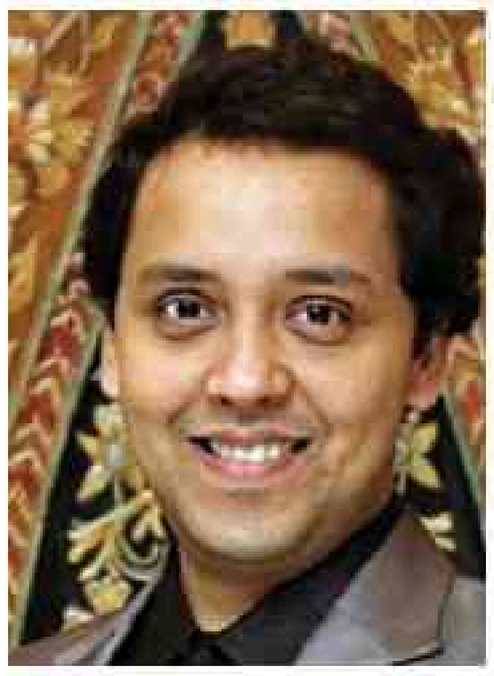
The UNSDG Agenda

To effectively address these stark social, economic, and ecological inequities affecting people across levels of the economic pyramid, in 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, called *'Transforming our World'*. The goal was to define the future we want through a blueprint for peace and prosperity for people and the planet, now and for the future. The new plan outlined 17 SDGs or 'global goals', and 169 targets that carried unprecedented potential for changing the existing socioeconomic, political, and cultural conditions in society for creating an equitable world. The goals recognised that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

The size, range and complexity of the tasks are such that the traditional concept of their being the exclusive domain of the government is no longer valid. The situation demands that the variety of available and potential resources and talents are pressed into service. At the highest international levels, the conviction is that the global community has enough financial resources and technical capacity to meet the SDGs, but the critical factors are political will and corporate commitment. The SDGs provide guidelines regarding areas in which corporate organisations, with vast financial, human, and intellectual resources at their disposal, can contribute. The current, annual investment gap stands at US$ 2.5 trillion. According to UNCTAD estimates, the private sector has the potential to bridge this gap by at least US $0.9 trillion annually.

While this may appear doable, the challenges are immense. India needs an investment of US$2.64 trillion to meet SDGs by 2030. The pandemic has already placed an unprecedented burden on available resources with governments. Major corporations have also been badly hit. Yet, the only hope for corporations and their leaders to survive this decade and succeed in the next is to have an inclusive, sustainable, and responsible approach to business as advocated by the UNSDGs. This would be possible not by mere compliance but through genuine corporate transformation and top leadership commitment. For this, they will need to embrace a fundamental transition from the antagonistic paradigm of business vs. society, to the synergistic paradigm of business and society, and proactively work towards embracing the enlightened paradigm of business for society. Then, and only then, would the UNSDGs be achieved in letter and spirit.

◆ DR SHASHANK SHAH

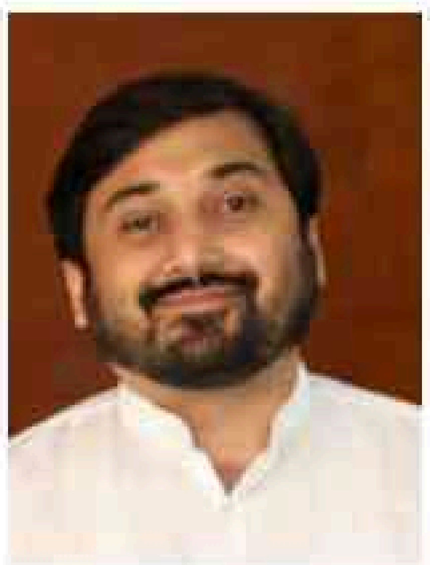


The author has been visiting scholar, Harvard Business School and Copenhagen Business School; and a fellow and project director at the Harvard University South Asia Institute. He is a national bestselling author with three books and 200 publications to his credit.

The global compact

A journey from decades of ambition to a decade of action

SHABNAM SIDDIQUI


ARYA DEV

From inception, the UN has been a creator and facilitator of innovative ideas in geopolitical economy. The quality and diversity of its intellectual leadership and its value-based framework for dealing with the global challenges of our times has always embodied a vision of international co-operation among governments and people to build a more peaceful and prosperous world for all. The UN Global Compact (UNGC) is a voluntary initiative intended for businesses to answer that call. Kofi Annan, the late UN Secretary-General, addressing the Davos World Economic Forum in January 1999, challenged business leaders to join a 'global compact of shared values and principles' and 'to give globalisation a human face'. Annan argued that shared values provide a stable environment for the global economy and encourage good corporate practices, which are meant to tackle the challenges brought on by globalisation.

Following the 1999 meeting, Annan and a group of business leaders formulated nine principles, which have come to be known as the UN Global Compact. After a lengthy consultation, the 10th principle against corruption was added in June 2004. The 10 principles of the Global Compact focus on human rights, labour, environment, and anti-corruption and are derived directly from commitments of international covenants -- the Universal Declaration of Human Rights; the International Labour Organisation's Declaration on Fundamental Principles & Rights at Work; the Rio Declaration on Environment & Development; and the United Nations Convention against Corruption.

Origins and growth

The mission of the UNGC is to foster a more inclusive and sustainable relationship between business and societies. Businesses can pursue it through internalising UNGC and its principles in their business strategies and operation. UNGC aspires to facilitate cooperation and collective problem-solving between different stakeholders. It seeks to provide a universal language for corporate responsibility and an authoritative framework for businesses everywhere, regardless of size, complexity or location.

UNGC has nurtured a network-based approach for the facilitation of multi-stakeholder CSR initiatives. The Local Networks advance the implementation of the 10 principles and catalyse business engagement on the broader goals of UN, including Sustainable Development Goals (SDGs) at the national level. They facilitate outreach, learning, policy dialogue, collective action, and partnerships. The networks scale action locally, helping to unite companies with communities and authorities to work together and address pressing issues. As countries differ widely with regard to their legislation around different aspects of responsible management, as well as their knowledge about and experience with relevant corporate practices, local networks help to contextualise discussions among business and non-business actors.

The engagement mechanism used for participants includes:

- leadership, in which the change is initiated by CEO commitment to the principles;
- dialogue, including a multi-stakeholder approach to identify challenges and find solutions;
- learning, by reinforcing dialogues through examples, case-studies and best-practices; and
- outreach, by providing frameworks at the national, regional and sectoral levels.

Over the years, UNGC's vision, which was supported by 44 pioneering companies, has today grown to become the world's largest sustainable business initiative. With 69 local networks, more than 10,000 businesses headquartered in 160 countries, representing more than 70 million employees worldwide, UNGC has become a global movement of businesses and stakeholders united to create the world we want.

SDG: a key priority

UNGC has worked towards change through thought leadership, scaling best practice and action globally and creating an enabling environment for sustainable change. Along with a set of Principles for Responsible Investment (PRI), which has more than 2,300 signatories, as well as a body of Principles for Responsible Management Education (PRME) designed to equip tomorrow's responsible business leaders with sustainability acumen and awareness, UNGC is guided by 17 SDGs and the Paris Climate Agreement. The SDGs reflect the UN's agenda for sustainable development until the year 2030.

SDGs are better aligned with responsible management concerns due to their more explicit emphasis on partnerships and their recognition that social, environmental, and economic problems are interconnected.While it is true that goal frameworks like the Millennium Development Goals

Siddiqui is Executive Director, UN GCNI; Dev is Programme Analyst (Legal), CEGET – UN GCNI year

(MDGs) provide organisations at national level with a monitoring framework, which helps them to put pressure on governments and hold them to account;with the advent of SDGs, this process has been more inclusive than ever, with governments involving business, civil society, and citizens from the outset. UNGC is committed to be a leading catalyst of that transformation.

Much like the UNGC's 10 principles, the SDGs provide a common framework to set priorities vis-à-vis sustainable development and to align the expectations and strategies of different stakeholders. Commitment to the SDGs is very much framed around the 'business case' for responsible management. The 'Agenda 2030' is as much an agenda for sustainable development as it is an agenda for responsible management learning. Such learning can happen in explicit and implicit ways, and conscientiously so, if we learn about sustainability, responsibility, and ethics against the background of the SDGs.

The pandemic presents both an enormous challenge and tremendous opportunities for reaching the 2030 Agenda. It has exposed the global fragilities and laid bare the rampant inequalities that were already making life difficult for the most vulnerable. But the pandemic also shows us the wisdom of what is already inherent in the SDGs; the challenges we face cannot be dealt with in isolation. It demonstrated that the human community is completely interconnected and interdependent, that without harmony, especially with those most vulnerable among us, we all lose.

It is widely accepted that the scale and pace of change to deliver the SDGs has not been large enough or fast enough to date. At this point in time – with 10 years to go – the world is not on track to achieve the SDGs. We need a 'Decade of Action' to reverse this predicament. For businesses, now more than ever, it is time to ramp-up action in all areas of their operations and value chains to support the delivery of the SDGs.

To build back stronger from the Covid-19 pandemic, UNGC launched a three-year strategy (2021-23) to increase businesses' contributions to the SDGs. The strategic ambition is to accelerate and scale the global collective impact of business by upholding the 10 principles and delivering the SDGs through five key shifts to accelerate the actions of business: holding companies accountable, balanced growth of local and regional networks, harnessing the collective action of small and medium-sized businesses, measuring impact in priority areas and engaging more actively with the UN and its partners.

Raising the bar

The UNGC works closely with its local networks to build their capacity to connect the local business community with UN offices at the country level. While local networks are independent, self-governed, and self-managed entities, they work closely with the UNGC Office in New York and act as a point of contact for UNGC signatories in a country.

In January 2018, the UNGC launched a new governance model called 'One Global Compact'. The new 'One Global Compact' governance, which provides for more alignment and integration between the UNGC and 69 local networks, gives greater substance to the G-local approach of the initiative. It is a global movement with strong connections at local level in order to be present where companies operate, guiding them to act responsibly and in an innovative way towards reaching sustainability.

UN Global Compact Network India

Formed in November 2000, UNGCNI was registered in 2003 as a non-profit society to function as the Indian local network of the Global Compact, New York. It is the first local network in the world to be established with full legal recognition. Apart from programmatic interventions, principle-based projects and flagship events, it carries out training and research, thematic competitions and has a knowledge center which boasts of publications on various facets of sustainability and responsible business practices.

Currently, UNGCNI is already running five major initiatives that include Global Impact Initiatives (GIIs), UNGC business accelerator programmes designed to mainstream proven and established sustainable business practices -- target gender equality (TGE); SDG ambition; young SDG innovators; climate ambition for 1.5 degree future; and CEO water mandate. These initiatives are focussed on not only measuring actionable impact and progress by companies that are members of the UNGC, but also by shining a spotlight on individuals delivering impact. GCNI is also supporting the creation and expansion of India chapter of PRME.

Consistent with UNGC's decentralised governance framework, which is crucial to the adaptation of the principles of the compact at the local level, UNGCNI has also provided for robust and decentralised system of governance, whereby it facilitates the launch and operation of local chapters in key Indian cities. UNGCNI has its local chapters in eight major Indian cities/ states -- Mumbai, Hyderabad, Chennai, Kolkata, Bengaluru, Pune, Assam and Kerala.

Throughout our journey, we have facilitated consultations across businesses, both public and private sector, and non-business stakeholders such as academia, policy makers and civil society. We believe that partnership and collective action is essential in all activities to advance the SDGs in the future.

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DSV CHARITABLE FOUNDATION

Empowering those in need

DSV Charitable Foundation is a non-profit organization that focuses on empowering people in need. A global group, we work to build comprehensive and sustainable initiatives to help people reach their fullest potential.

DSV Foundation is present in India since September 2020, improving access to ecologically viable solutions. Our large community of volunteers engages with people to discover, research, analyze and create solutions that encourage growth and prosperity.

With each new initiative, we hope to ensure we help those in need build their lives, foster prosperity, financial growth, and create a legacy.

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RO Plant with Water Dispensing System: Mummenahalli Village, Karnataka

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COMPLETED PROJECTS

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Sewaj Neesim Foundation for "Vardi Ka Samman"

REHOBOTH
Chennai

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DSV

RO Water Purification Plant with an ATM dispenser: Ahmednagar

Rebuilding Lives of Migrant Workers: Across India

G.O.D Abode Project with the MBA Foundation

“We want to impact large number of lives”

The Indian unit of global logistics major, DSV has set up a foundation to significantly expand the scope of its various CSR activities executed in different corners of the country. Sameer Khatri, Regional Director – Indian Subcontinent & MD India of the company explains the key focus areas of DSV’s CSR portfolio…

Please take us through the journey of DSV foundation? How would you explain its basic portfolio and key focus areas?

DSV Charitable Foundation is a non – profit organization founded in September 2020 with an aim of empowering people in need and supporting community projects in India. As a global group, we work to build comprehensive and sustainable initiatives to help everyone reach their full potential.

DSV Foundation seeks to nurture, develop, and boost rural development, while giving fillip to social welfare, healthcare and education. We create workable solutions to conserve natural resources and rehabilitate the economically backward, immigrants and specially abled.

Today, the DSV Foundation in India is improving access to ecologically viable solutions. Our large community of volunteers engages with people to discover, research, analyse and create solutions that encourage long term growth and prosperity. Our key focus areas are: livelihood, health and sanitization, and education.

In more specific terms, what were the key triggers for kickstarting a dedicated foundation?

DSV Air & Sea Pvt Ltd has always been into CSR activities and has carried out many important projects in the past. However, we felt the need to have more focused and dedicated approach towards CSR. Hence, DSV Charitable Foundation was established.

How would you explain your flagship programmes?

Today, our foundation is spearheading a host of projects ranging from setting up water purifier plants to large scale programmes in education and livelihood.

We have so far successfully installed two water purifier plants in Kohakadi Village located in Parner Tehsil, Ahmednagar district in Maharashtra and Mummenahalli Village in Ramanagara district, Karnataka.

The objective of the project is to provide clean drinking water to the villagers who earlier had to travel miles to get clean drinking water for their family. The projects have helped approx. more than 1000 people so far. For women empowerment and rehabilitation, we are doing a programme in association with Rehoboth, which has been working to uplift the lives of destitute women, who are mentally differently abled. For promoting education among the under privileged and rural children, we are pursuing a slew of projects in association with reputed NGOs like ISHA Foundation, Shravan Mitra Project, and G.O.D. Abode Project. Shravan Mitra Project, partnered with the Maitra Parivar NGO, aims to offer financial support to their student for their hearing aids & the recurring cost incurred to maintain them. G.O.D Abode Project with the MBA Foundation aims to take care of differently abled children.

Our foundation, in association with Savitribai Phule Mahila Ekatma Samaj Mandal (SPMESM), has also carried out Pragati Skill Training Programme for local women. In association with Sewaj Neesim, we have participated in a unique programme called Vardi Ka Samman. It entails turning old defense uniforms into usable products for the under-privileged. From old defense uniforms, they make products like blankets, school bags, masks, bibs, aprons, etc., to donate, particularly to children with special needs, people at old-age homes and orphanages. And any proceeds from the sale are directed to the Martyrs fund.

Factors like covid or the emphasis on sustainability - to what extent they have influenced your social sector initiatives?

COVID and other social and environmental factors have always influenced our decisions with reference to selecting and working on the right projects which focus on our key areas.

Take the case of our Re-building lives of migrant workers initiative. It was setup during the COVID-19 pandemic that displaced lakhs from their homes and livelihoods. This project aims to offer support with food, sanitation and healthcare to migrant workers most affected during the pandemic. 5000 migrant workers have benefitted from this project so far.

How much are you relying on execution partners?

We surely rely on our both internal and external execution partners, they play a pivotal role in successful completion our projects. A lot of research, study and efforts are put in by the team to execute each project to ensure 100% success.

Have you undertaken any impact assessment of your programmes? What could be the possible volume of beneficiaries of your social initiatives?

Yes, we do take impact assessment study into consideration for all our projects, both pre and post completion. This is part of our project evaluation process. We want to ensure that we impact larger number of lives for a longer period with each project that we undertake.

How do you intend to take your CSR activities to the next level?

Our core team is focused to take our CSR activities to the next level. We constantly research to find out new projects to meet the requirements of the society. Frequent discussions with our internal and external stakeholders are carried out regularly for DSV Charitable Foundation to undertake as many projects as possible. ◆

The metamorphosis

This has been a decade of outcomes, with the caterpillar metamorphosing into a butterfly

Corporate Social Responsibility (CSR) in India has come a long way since 2014-15, when the Companies Act 2013 introduced a structure and mechanism for systematic and impactful social spending and outreach by corporates.

While the year 2021 marks the beginning of the 'Decade of Outcomes' towards the achievement of the United Nations Sustainable Development Goals (UNSDGs), we have been calling this the 'Decade of Action' as we watch corporates increasingly align their CSR strategy to the SDGs and align them sharply to national priorities. CSR and SDGs are like the double helix model of the DNA, intertwined inextricably – both call for sustainable development and with the clients we work with, we enable choices in CSR that are both strategic and long-term/sustainable. While 59 per cent of the CSR spend in India during 2014-20 was towards Education, Healthcare and Rural development, in the last few years, corporates have started contributing towards other SDGs like SDG 6 (Clean Water – an increase of 66 per cent in CSR spend in 2020 compared to 2014), SDG 9 (Industry, Innovation & Infrastructure – an increase of 22 per cent in 2020 compared to 2014), SDG 13 (Climate Action – an increase of 70 per cent in 2020 compared to 2014). The Data Stories from our data platform, India Data Insights included in this issue capture the details across all SDGs.

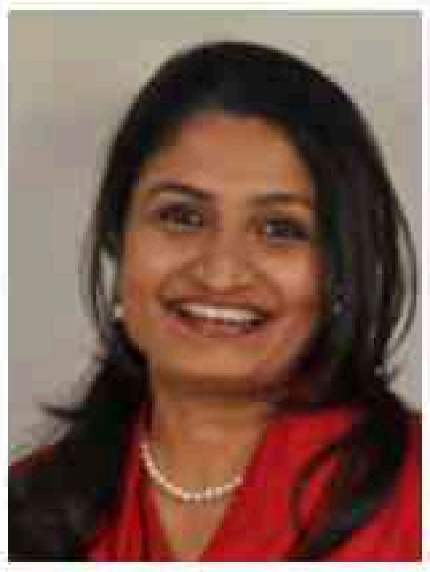
The catalytic role played by the NITI Aayog to ensure collaboration between the private sector, the social sector and the government has also ensured significant scaling up of collaborative work on the ground, including in India's 112 Aspirational Districts, where the transformation is significant.

Innovation and digitisation

Several corporates in India have now transitioned from looking at CSR merely as a way to primarily fund education and healthcare initiatives to looking at finding innovative solutions for large-scale social problems. They have done this by directing their CSR funds towards incubators and research institutions. They pilot these innovations and demonstrate the potential to scale, at which point they segue to funding accelerators that solution for scale.

Besides innovation, the other trend has been digitisation. The pandemic has played a catalytical role in digitisation efforts resulting in several corporate, taking to digital innovations, especially in health-tech, fin-tech, and agri-tech! In many ways, the CSR of yore is almost unrecognisable among many progressive thinking corporates, which are aligning their CSR priorities to the nation's priorities and trying to move the needle there in a non-linear fashion. In fact, as of 2019, 18 per cent of the top 100 CSR spenders in the country have gone on to set-up their own corporate foundations too!

SRIKRISHNA SRIDHAR MURTHY



MEERA HARISH

Murthy is co-founder and CEO, Sattva; Harish is Partner, Sattva

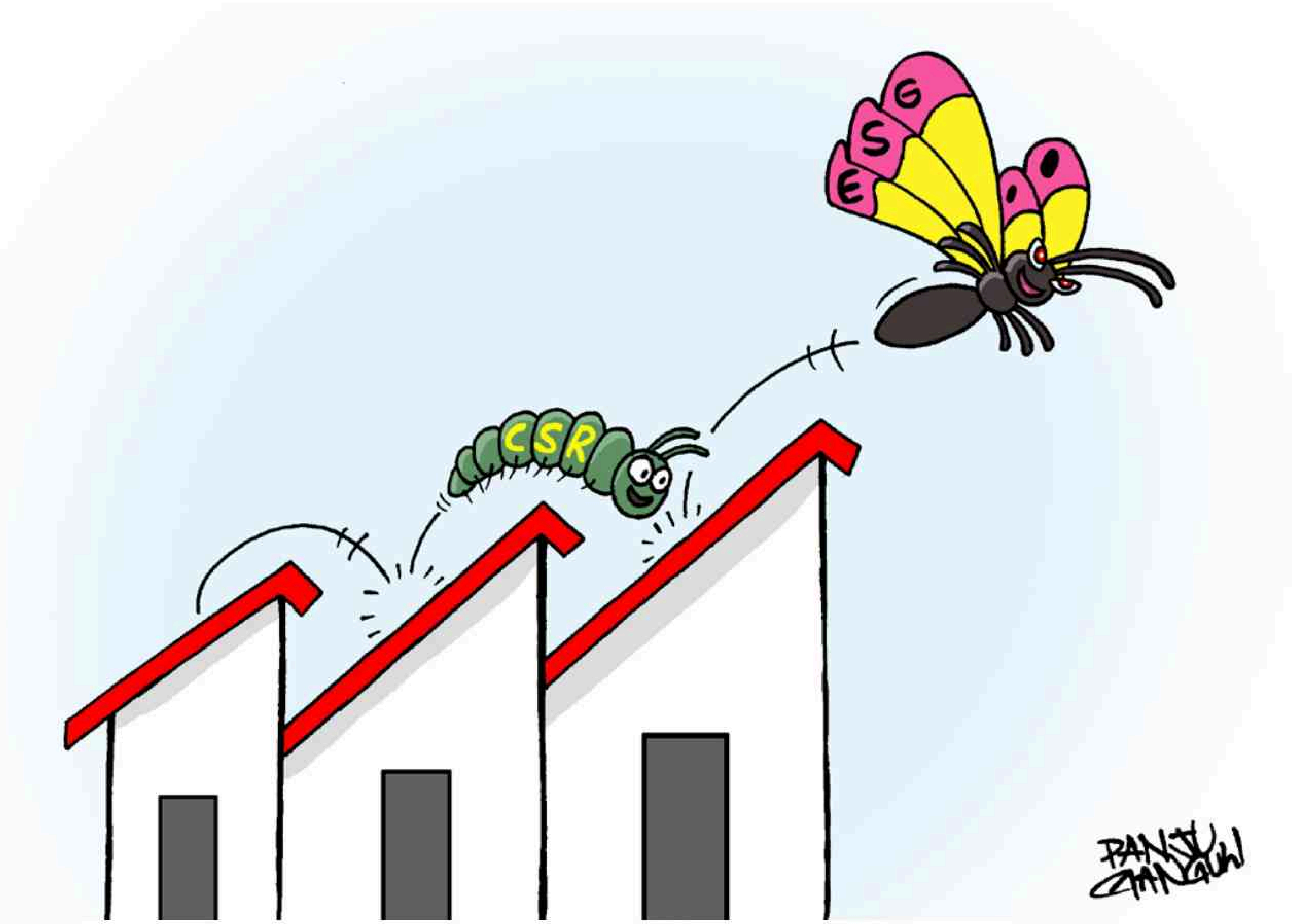
For those of us working in this ecosystem, these transitions are palpable. From 'project mode' regular CSR in 2014 to now innovations and digitisation for scale, the corporate-CSR ecosystem has come a long way.

The segue to ESG

And as we write this in 2022, CSR has segued into the next phase in India – ESG. The adoption of strong ESG standards by corporates is the next important strategic step in the evolution of CSR practices in India. While CSR has largely been outward looking thus far for organisations, with lesser focus on solving problems directly related to them, ESG norms integrate internal and external factors. Importantly, ESG measures social responsibility in a way that can be understood by investors, customers, regulators and employees and several agencies such as MSCI now accord an ESG rating to corporates.

While robust ESG policies naturally make the world a better place to live in for all of us, they have a three-fold direct impact on corporates as well: reputational, operational and financial. They improve a corporate's brand value, help attract talent, counter investor activism, and result in reduced regulatory interventions. A corporate can have better operational efficiency, manage climate-related risks better, and boost innovation. And on the financial front, a high ESG rating can help a company tap into new markets and customers and access cheaper debt and equity capital. There has been significant correlation between good ESG practices and valuations and stock price performance.

As in the case of CSR, the government of India and regulators are helping accelerate the adoption of best practices. SEBI has mandated BRSR (Business Responsibility and Sustainability Reporting) for the top 1,000 listed companies from 2022-23. It is based on the nine principles of the NGRBC



As the government, regulators and corporates are focussed on creating a more robust strategic ESG ecosystem, there is a lot more talent migrating from the corporate to the social sector, bringing in fresh views and ideas

(National Guidelines on Responsible Business Conduct). This report is the first step towards the standardisation of sustainability disclosures in India, which is expected to get more stringent in the years to come.

And, as the government, regulators and corporates are focussed on creating a more robust strategic ESG ecosystem, there is a lot more talent migrating from the corporate to the social sector, bringing in fresh views and ideas. Cross-sector collaboration is gradually increasing, with corporates not just funding projects but working with other ecosystem players, to drive significantly more impact by leveraging their talent, expertise, systems and processes, networks and platforms.

Newer tools for social impact

Pushing the envelope on innovation has also led to pushing the boundaries on the various tools put to use for social impact, whether they be rolling funds or Development Impact Bonds – the latter an innovative instrument, where an initial investor funds a project and an outcome payer provides the investor a return on capital after the results (as measured by an evaluator) hit a certain target, thus ensuring impactful spending. One of the earliest examples was the involvement of Children's Investment Fund Foundation and UBS to reduce the gender gap in education in rural India. The emergence of a new class of investors and the availability of these new instruments is nudging corporates towards faster adoption of high ESG standards and helping social enterprises raise capital.

With all these changes, the Indian corporate CSR ecosystem of 2022 is not the same as what it was in 2014. It is the proverbial caterpillar metamorphosing into a butterfly and how! ◆

AUROBINDO PHARMA FOUNDATION

Bringing in Smiles

Aurobindo Pharma's philanthropic arm, Aurobindo Pharma Foundation, has touched and elevated many lives proving that in the act of giving lies the true expression of finding joy and solace.

The famous English writer, Lewis Carroll, once wrote, 'And so you have found out that secret—one of the deep secrets of Life – that all that is really worth doing is what we do for others'. For Aurobindo Pharma Limited, the pharmaceutical giant, these words came to fruition in 2015 when they started Aurobindo Pharma Foundation (APF), its philanthropic arm. And so far, the Foundation has been driving its core values of holistic community welfare and societal development in alignment with the state and national agenda.

The Foundation has taken a diverse approach to prioritize on projects and activities, and a key objective in all its projects is to make them self-sustainable, such that the stakeholders are able to take ownership post their intervention. Mapping community needs and engaging them are key for their successful implementation so far.

A total of approximately 150 different CSR projects and activities were undertaken during financial year 2020-21. Community engagement forms the central approach of the Foundation's projects, which helps them to become self-sustainable even after its active involvement is completed.

ERADICATING MALNUTRITION

By providing nutritious food to those in need, the Foundation strives to break the vicious cycle of malnutrition and poverty. Its concerted efforts towards nutrition and health have led to many indirect outcomes and improved quality of life and the Human Development Index.

APF has been working with Hare Krishna Movement Charitable Foundation and has built three full-fledged automated kitchens as part of the nutrition initiative in Narsingi (Hyderabad), Mahboobnagar of Telangana State and Singupuram village, Srikakulam Dist., Andhra Pradesh. These 3 kitchens provided over 1.1 lakh healthy meals per day to children, rural people, women and stranded communities among others.

Taking a step further in improving nutritional systems in educational institutions, APF has also constructed a kitchen building with modern equipment at Dr. B.R. Ambedkar University, Srikakulam Dist., AP, which is now fully equipped to provide nutritious meals for 1,000 students and faculty members every day.

ENABLING SKILL BUILDING

SKILL DEVELOPMENT CENTRE
VARISAM

The Foundation facilitated preparation and training for pharma and chemistry graduates by establishing a Skill Development Centre (SDC) at Varisam village, Srikakulam Dist., AP in 2018.

The SD (Skill Development) program helped students become gainfully employed. Among the 89 students trained so far, 63 got employment in various industries. Apart from that, APF is funding for the establishment of a SDC to provide training for competitive exams through Makineni Basava Punnaiah Vignana Kendram, Vijayawada, Krishna Dist., AP since 2019. Under this program, more than 1,500 rural unemployed youth became employable.

EMPOWERING THROUGH EDUCATION

Since its inception, the Foundation has made education one of its main focus areas, as it is quintessential that every citizen gets access to high quality education. APF collaborates with schools, colleges, and universities to provide education to the underprivileged and it sponsored education fees for 11 poor students in various educational institutions in FY21 in the states of AP and Telangana. It also provided financial support during February, 2021 to Auro Mira Vidya Mandir (a school promoted by Auro Ashram, Delhi) located in a village by name Kechla, Odisha state, that facilitates a quality and holistic education process for 50 tribal students of marginalized communities.

The foundation also supported 15 Vidya Volunteers who are teaching in various government schools in Telangana through monthly remuneration. Furthermore, it also worked with 45 schools in Andhra Pradesh and Telangana state and built 30 classrooms.

Recently, to facilitate better education, APF constructed and operationalized a greenfield English Medium High School in the premises of Govt. School of Sadasivapet village, Telangana state. The foundation also funded the Digital Equalizer (DE) program of American India Foundation (AIF) to

integrate digital and STEM learning into under-performing and under-resourced government schools in several villages of Andhra Pradesh state. Furthermore, APF has collaborated with the NGO Room to Read to set up creative libraries in various government schools of Sangareddy district, Telangana in an effort to improve literacy and inculcate reading habits in young children.

DRIVING WOMEN EMPOWERMENT

APF conducted several women empowerment programs in adopted model villages including Peyyalapalem village in Nellore Dist., AP State and Borapatla village in Sangareddy Dist., Telangana State. This was to provide training programs for women on tailoring courses to help them increase their income levels. In 2020-21, women of Peyyalapalem village converged with the Indira Kranthi Pathakam (IKP) scheme of Government of AP to make masks to prevent the spreading of COVID-19.

These programs enhanced the income levels of about 194 women during the COVID-19 pandemic in FY21. It helped them to become independent, remain self-reliant and earn more income in these challenging times.

ENCOURAGING RURAL SPORTS

The Foundation is providing financial assistance to children with potential and skills to progress in their sports career. In addition to that, APF provided funds to Jwala Gutta Sports Academy, Moinabad, Hyderabad (Telangana state) which provides free sports training to rural sports persons. This sports academy has provided training for more than 1,200 sports persons for national and international events. Furthermore, APF has financially supported International Gymnast named Budda Aruna Reddy, who has recently won the Pharaohs Cup FIG International Artistic Tournament held in Cairo, Egypt. Overall, around 1,500 sports persons benefited from its rural sports sponsorship program.

BETTERING HEALTHCARE AND HYGIENE

Care Health Project

To fulfil the basic rights of health and well-being for the rural poor and needy people, APF has been providing advanced healthcare equipment. It provided Ultrasound machines with convex robes to the Government Community Health Centre at Buchireddypalem village, Nellore district for growth monitoring of unborn babies. In addition to that, it provided financial support to cancer, heart, and lung patients for life saving surgeries. These support program benefitted around 2,119 patients directly.

APF has provided funds to Pushpagiri Vitreo Retina Institute for eye care equipment that will facilitate 1000 to 1500 super-speciality eye care services to rural communities at no cost in Kadapa district of AP. The Foundation has collaborated with CARE India NGO to improve health and nutrition related services by strengthening Primary Health Centres (PHCs) and Anganwadi Centres that may impact 2 lakh rural communities in AP. It is also funding the construction of a new cancer hospital with state-of-the-art technology at MNJ Institute of Oncology, Hyderabad, with a total 2,20,000 sft that will come into operation from 2022.

So far, APF has established a total of 126 RO water plants, of which 9 were established in 2020-21. Altogether, these RO plants are ensuring the health of about 67,911 rural communities in AP and Telangana.

ENSURING PUBLIC SAFETY

To support the cause of government for ensuring public safety and responsible policing in the prime area of Bachupally, APF has pledged to support through CSR fund to construct a model police station.This new police station in its full shape will come to its function by mid-2022 and benefit around 25,000 citizens living in Bachupally besides many companies and institutions. It also provided funds for the safety of the public through Industrial Fire Safety Association in Telangana and AP States for their expenses, salaries and monthly maintenance of fire tenders.

COVID-19 INITIATIVES

APF set up medical oxygen generating plants in Gandhi Hospital, Hyderabad, Telangana state and M.B. Super Specialty Hospital, Vizag, AP-State. It also provided 50,000 cubic meters of medical grade oxygen (through tankers) to Gandhi Hospital, Telangana Institute of Medical Science and Research Hospital (TIMS&RH) in Hyderabad and Mahatma Gandhi Memorial Hospital, Warangal, Telangana state during the second wave of COVID in early 2021.

APF also provided ventilators and oxygen concentrators to needy patients and supplied face masks, Vitamin C & Zinc tablets, and sanitizers to people.

To aid the government in combating the pandemic, APF has contributed a total of Rs. 32

APF's CSR Impact
(in lakh)
IN 2021

9.2	2.3
BENEFICIARIES	FAMILIES

crores to the Andhra Pradesh, Telangana states and PM-CARES funds.

During the second wave of COVID-19, APF equipped Government Area Hospital, Tuni, AP, with necessary high quality medical equipment to treat COVID patients. It also provided ambulance services for free in Srikakulam and Vizianagaram districts during second wave of COVID to aid COVID affected communities.

With the rise of post-COVID complications in many patients, the Foundation equipped Osmania Dental Hospital, Hyderabad with required equipment and infrastructure to treat patients suffering from post-COVID maxillary and mandibular bone osteomyelitis and black fungus. APF conducted multiple free vaccination drives in the villages of Borapatla, Gundlamachnoor, Pulpanoor and Reddykhanapur of Sangareddy district, Telangana state. This vaccination drive helped vaccinate and protect 1,680 villagers from the virus.

DRIVING SUSTAINABLE AGRICULTURE AND ENVIRONMENT PROGRAMME

APF formed a couple of Farmer Producer Organizations (FPOs) with 602 shareholder farmers from Pileru (Chittoor Dist., AP) and 200 shareholder farmers from Borapatla village (Sangareddy Dist., Telangana) along with 600 indirect beneficiary farmers from same village, to empower and engage the farming communities to drive them towards best agriculture practices.

The comprehensive sustainable agriculture program will positively impact 1,402 farmers across various villages in AP and Telangana. It has also established a Lift Irrigation scheme in Borapatla, Sangareddy Dist., Telangana which is able to irrigate 700 acres of cultivable land in two crop cycles and has helped double the income of 822 farmers during the 2020-21 crop season. It is also in the process of establishing another Lift Irrigation scheme in the village of Mojerla, Wanaparthy Dist., of Telangana State.

Towards environment sustainability, APF in collaboration with state government schemes of AP and Telangana, planted 2,16,751 saplings of various species to develop social forestry.

Meeting Sustainability Goals 2025

As a valued player in the global Pharmaceutical industry, Aurobindo Pharma remains steadfast to promote health and well-being worldwide. As the pharmaceutical conglomerate completes 35 years of promoting 'Healthier Life', its long standing focus, combined with a rising interest in Sustainability performance, has influenced Aurobindo to expand its credo to holistically address the Environmental, Social and Governance (ESG) dimensions of business. It has aligned the varied impacts of its operations to support India's sustainable development priorities and the United Nations Sustainable Development Goals (UN SDGs). Therefore, steadily moving towards a sustainable business model.

ESG Strategy

In the financial year 2021, Aurobindo conducted a thorough assessment of its systems and processes across the value chain and developed a Sustainability Framework to identify key focus areas for continuous improvement. As an outcome, the firm finalized its commitments, and set achievable targets across ESG parameters in alignment with the United Nations Sustainable Development Goals (SDGs) to achieve by 2025.

Sustainability Goals 2025

Aurobindo's ESG goals includes reducing carbon emissions by 12.5% (as per SBTi – WB2°C) from a 2020 baseline along with achieving 35% water and conservation/restoration, 60% co-processing of hazardous waste and 100%reuse / recycle of non-hazardous waste.

Aurobindo is also committed to promote balanced gender & equal opportunity and achieve 12.75% of women out of total workforce, 25 hours of learning per employee by 2025 and also continue its efforts to ensure ZERO reportable incidents across its facilities, empowering communities to build progressive ecosystem, innovating and strengthening healthcare systems and effective Governance

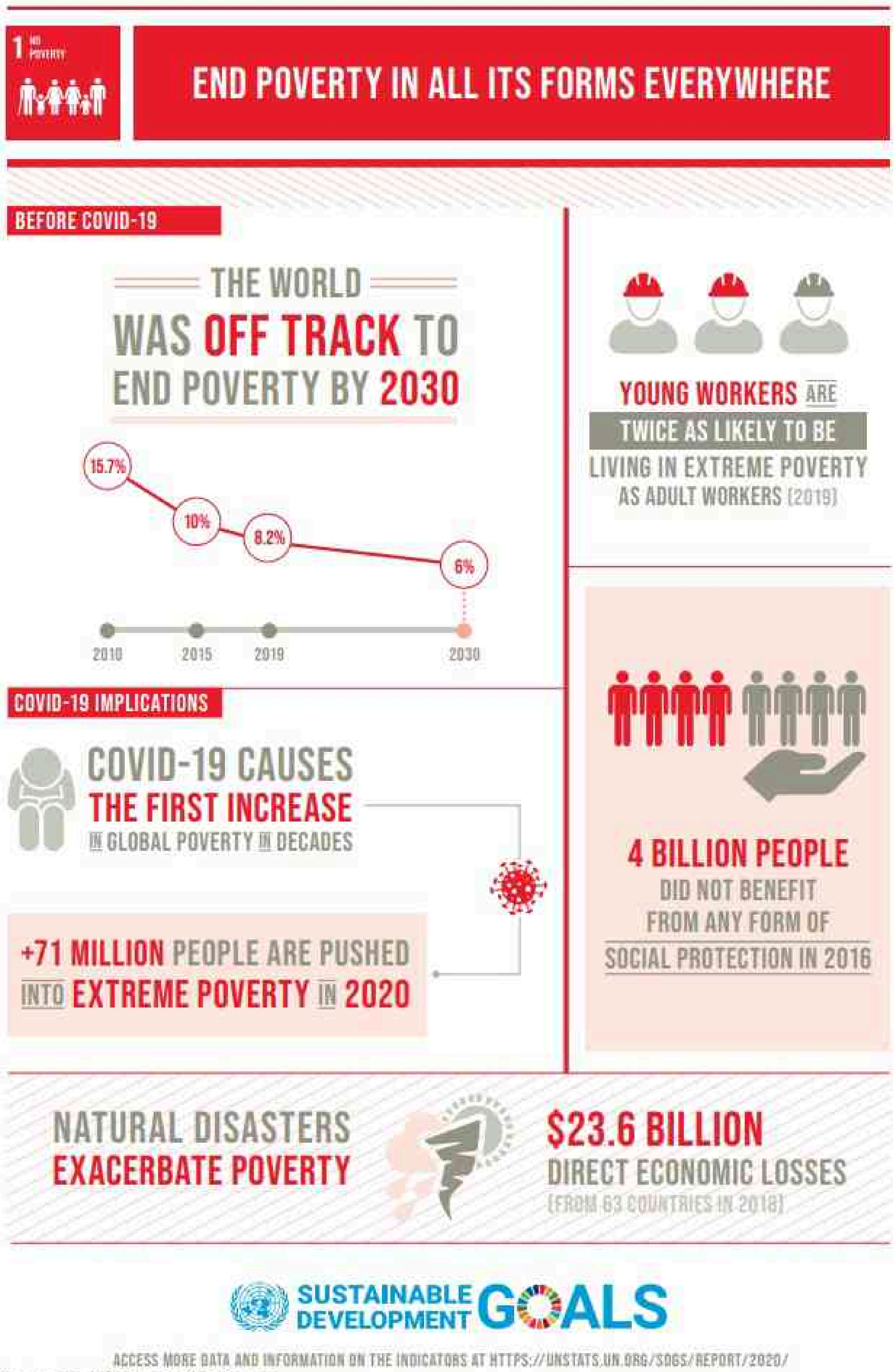
Green Belt Development and Maintenance
By
AUROBINDO PHARMA FOUNDATION
“Plantation Under Environment Sustainbility Program”
“Let's go Green as it makes Environment Clean”

Biodiversity

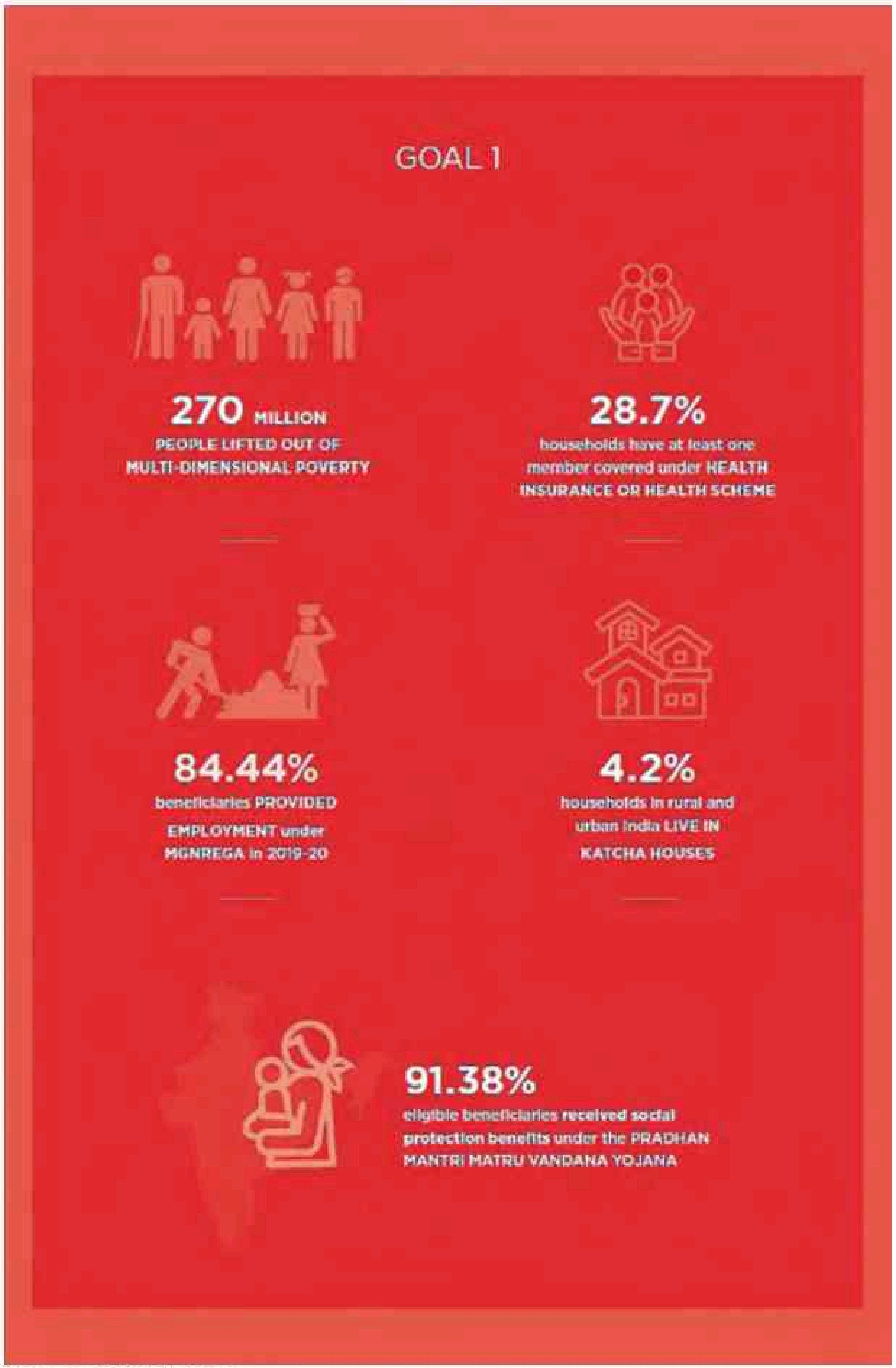
During FY21, Aurobindo planted around 60,781 indigenous plants, providing much needed green cover to balance the ecology and help in carbon sequestration, and also a massive plantation drive across 791 hectares of land inside and outside the boundary of facilities.

Goal: End poverty in all its forms everywhere

The United Nations identified 17 SDGs in 2012, which are crucial to Sustainable Development across the world. The first of these SDGs is 'No Poverty', a term we often hear in a developing nation, which the UN defines as the goal to end poverty in all its forms, everywhere


1 NO POVERTY
END POVERTY IN ALL ITS FORMS EVERYWHERE
BEFORE COVID-19
THE WORLD WAS OFF TRACK TO END POVERTY BY 2030
15.7%
10%
8.2%
6%
2010
2015
2019
2030
YOUNG WORKERS ARE TWICE AS LIKELY TO BE LIVING IN EXTREME POVERTY AS ADULT WORKERS (2019)
COVID-19 IMPLICATIONS
COVID-19 CAUSES THE FIRST INCREASE IN GLOBAL POVERTY IN DECADES
+71 MILLION PEOPLE ARE PUSHED INTO EXTREME POVERTY IN 2020
4 BILLION PEOPLE DID NOT BENEFIT FROM ANY FORM OF SOCIAL PROTECTION IN 2016
NATURAL DISASTERS EXACERBATE POVERTY
$23.6 BILLION DIRECT ECONOMIC LOSSES (FROM 63 COUNTRIES IN 2018)
SUSTAINABLE DEVELOPMENT GOALS
ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations


GOAL 1
270 MILLION PEOPLE LIFTED OUT OF MULTI-DIMENSIONAL POVERTY
28.7% households have at least one member covered under HEALTH INSURANCE OR HEALTH SCHEME
84.44% beneficiaries PROVIDED EMPLOYMENT under MGNREGA in 2019-20
4.2% households in rural and urban India LIVE IN KATCHA HOUSES
91.38% eligible beneficiaries received social protection benefits under the PRADHAN MANTRI MATRU VANDANA YOJANA

Source: NITI Aayog

Poverty has been a long-standing issue in many countries, and it is one that India continues to fight despite significant economic growth over the last three decades. Looking to the future, India has highlighted 7 key targets to achieve by 2030 to reach 'No Poverty':

- Eradicate extreme poverty by ensuring every person has at least $1.25 (₹93~) to live on.
- Reduce the proportion of men, women, and children living in poverty by at least half
- Implement nationally appropriate social protection systems and measures for all
- Ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to essential services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services, including microfinance
- Build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social, and environmental shocks and disasters
- Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, to provide adequate and predictable means to implement programmes and policies to end poverty in all its dimensions
- Create sound policy frameworks at the national, regional, and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions

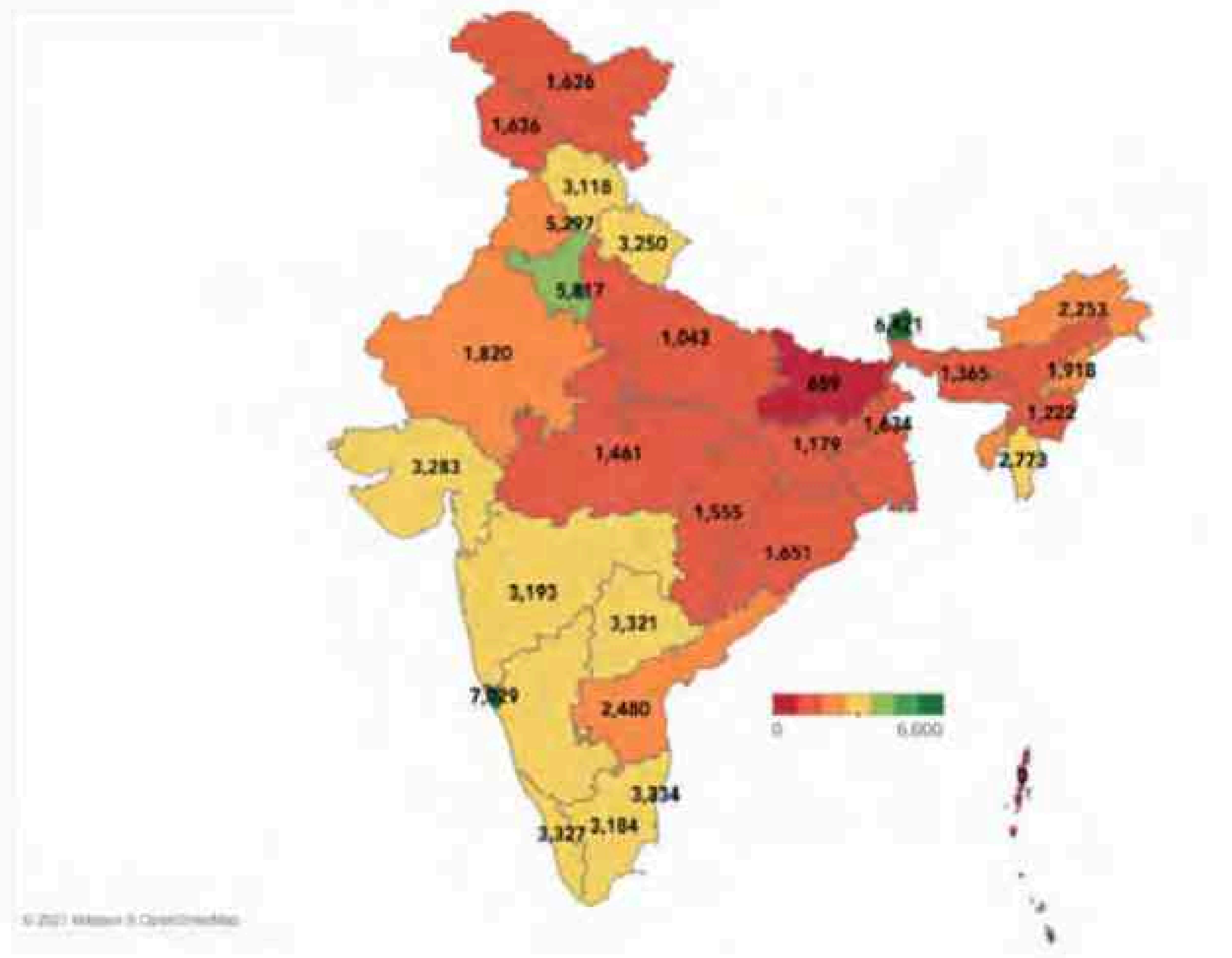
Despite the overarching goals in place, as per UN reports, India still faces significant challenges in this area. As per recent UN rankings, India stands 108th in the world out of 165 countries assessed, with the UN noting that substantial challenges remain in the country, despite moderate improvements.

The state of poverty in India can be better understood while looking at poverty in comparison with the international poverty line, as tracked by the World Bank. From this data, it is evident that a decline in poverty is clearly visible from the poverty headcount ratio (the percentage of the population living below the poverty line) at both the national and international levels. Based on international data, the percentage of the population living below the poverty line in 1976 was 63.10 per cent, a number that has declined to 22.5 per cent around 2010. National data also shows similar findings, with poverty levels dropping from 45.3 per cent in 1988 to 21.90 per cent in 2010, closing the gap to the Millennium Development Goal (MDG) that was set prior to the SDGs. This is an excellent sign as the country has surpassed its target in this area.

A similar trend is visible in the poverty gap (ratio by which the mean income of the poor falls below the poverty line) compared to poverty lines (half the median household income of the total population), as tracked by the United Nations World Population Prospects and Indian Census. The poverty gap reduced from 21.8 per cent in 1976 to 4.6 per cent in 2010. While this move is in the right direction, the range of inequality across India has increased. The GINI index shows a rise from 32.10 in the early 1980s to 35.70 in 2010, reflecting growing economic differences.

State-wise and multidimensional poverty levels

GDP per capita 2019 ($)



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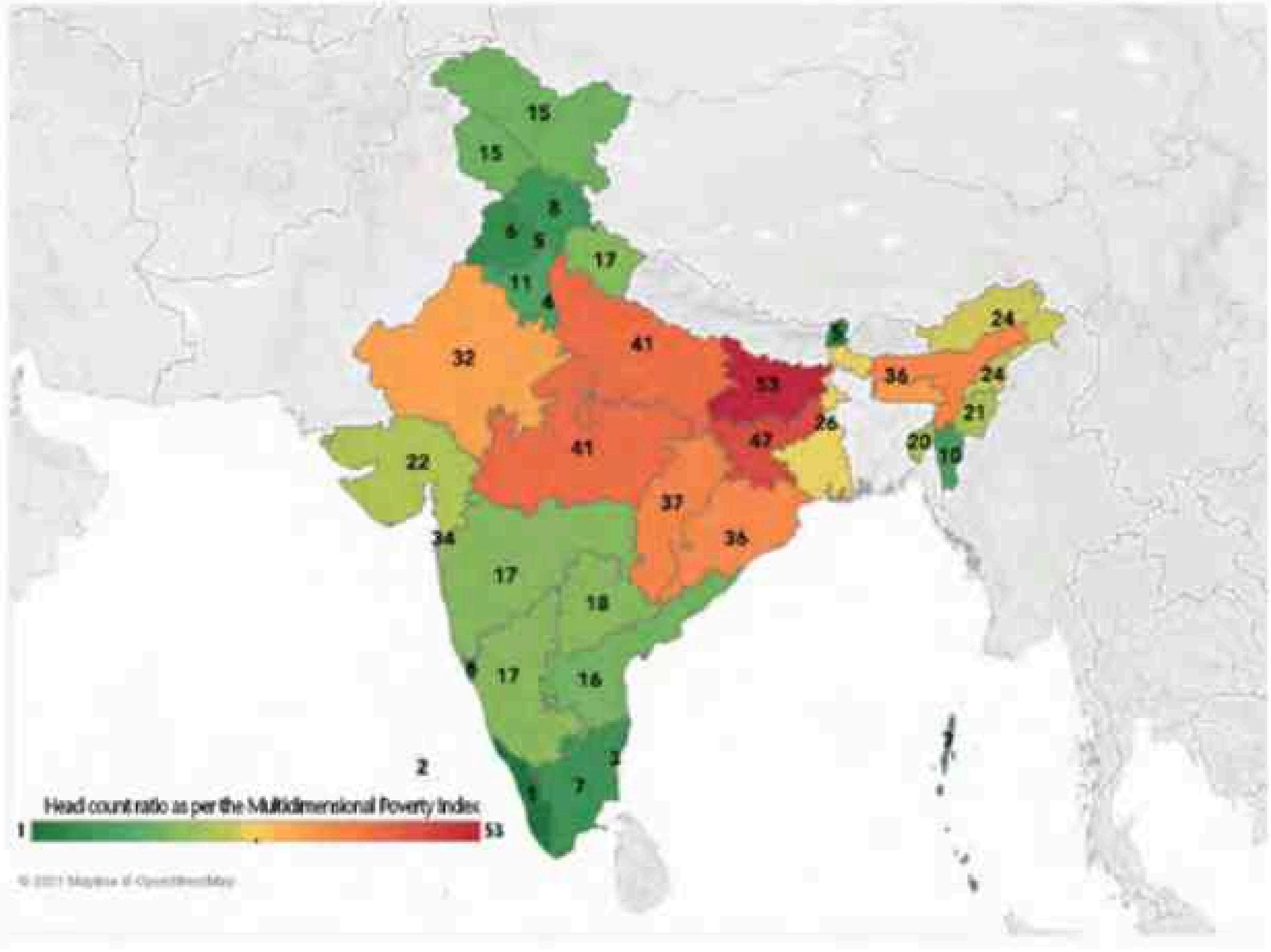
People who are multidimensionaly poor - 2020 (%)



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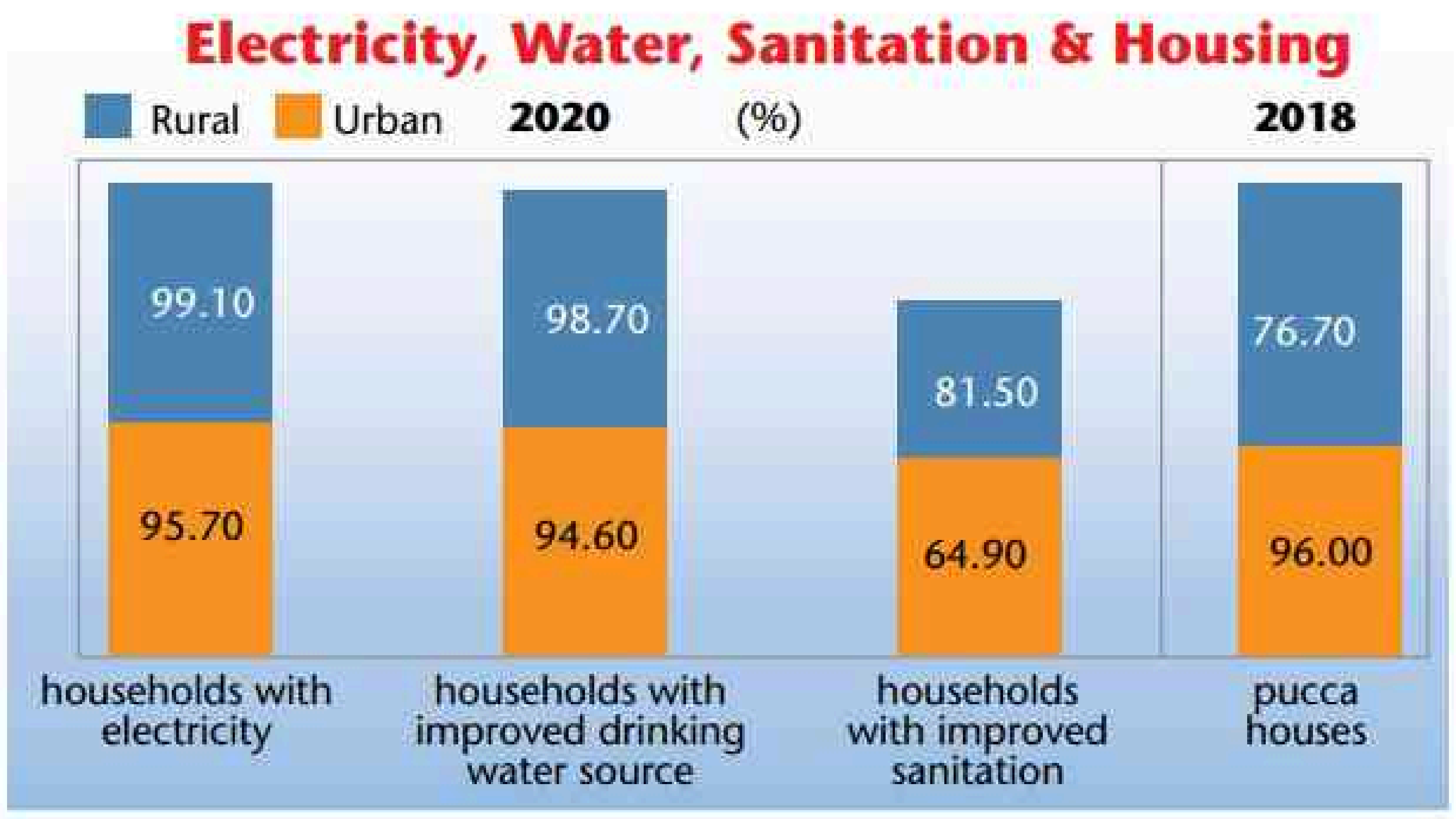
The economic inequality across the country can be better understood by looking at Reserve Bank of India (RBI) data on a state-to-state basis. Here, we found that while poverty has decreased drastically since 1990, the variation in GDP across states is significant, with central and eastern India performing the poorest, while smaller and southern states showing increased GDP.

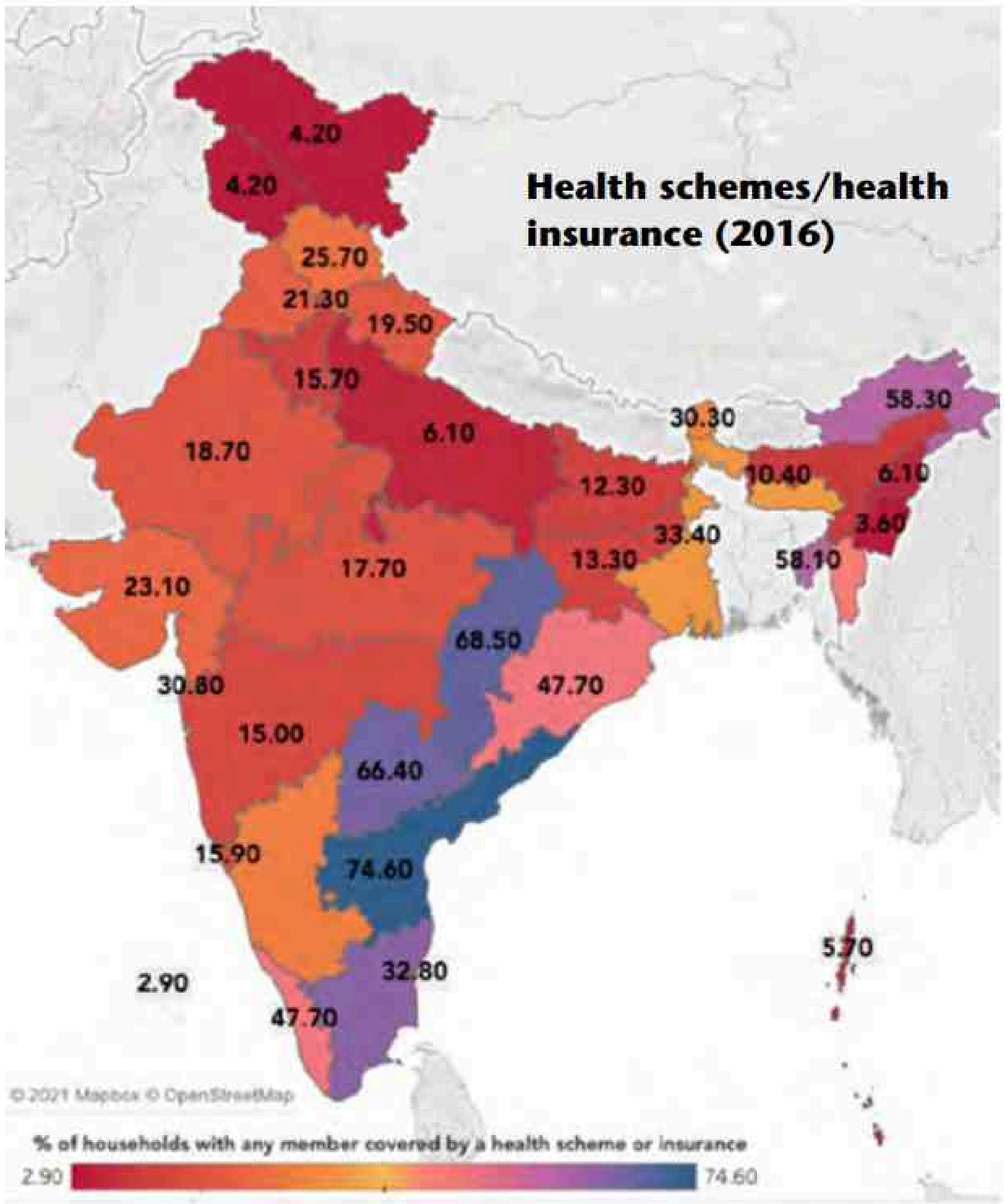
The gap in GDP amongst states is also reflected in the multidimensional poverty data from the UNDP, which conveys the levels of poverty with greater nuance. It encompasses the various deprivations experienced by the poor in their daily lives – such as poor health, lack of education, inadequate living standards, disempowerment, poor quality of work, the threat



of violence, and living in areas that are environmentally hazardous, among others. The percentage of the population considered to be multidimensionally poor is higher in states with low GDP. In September 2021, India ranked 62nd among 107 countries in multidimensional poverty.

In addition to economic poverty, access to basic services is crucial in determining the quality of life. India still falls short of the 100 per cent coverage target for basic services. As of 2020, 99.1 per cent of rural homes and 95.7 per cent of urban homes had access to electricity. Similar trends are visible in terms of improved drinking water sources where 98.7 per cent of rural homes and 94.6 per cent of urban homes have been found to have access. Sanitation was found to be the most lacking with 81.5 per cent of rural and 64.9 per cent of urban homes having improved sanitation.

Government's flagship programmes for poverty alleviation



In addition to economic poverty, access to basic services is crucial in determining quality of life. India still falls short by the 100 per cent coverage target for basic services. Consequently, numerous programmes are currently in place to help elevate the population out of poverty. The PM Jan Dhan Yojana is one of these initiatives which aims to expand affordable access to financial services. Over the last five years, this programme has seen a steep rise in participation, increasing four-fold in the country with two-thirds of participants coming from rural India. Such programmes can help those in need of bank accounts, remittances, credit, insurance, and pensions, and is crucial in the efforts to reduce the poverty gap.

Alongside efforts to improve financial literacy among the population, social inclusion initiatives also play a significant role in reducing India's population that is in poverty.

Health care is one such factor and is comprehensively tracked by the National Family and Health Survey. As per recent and most comprehensive data, only 28.7 per cent of the population has been covered by health schemes and insurance, with state-wise trends reflecting the state GDP, except for Andhra Pradesh, which has the highest health insurance coverage.

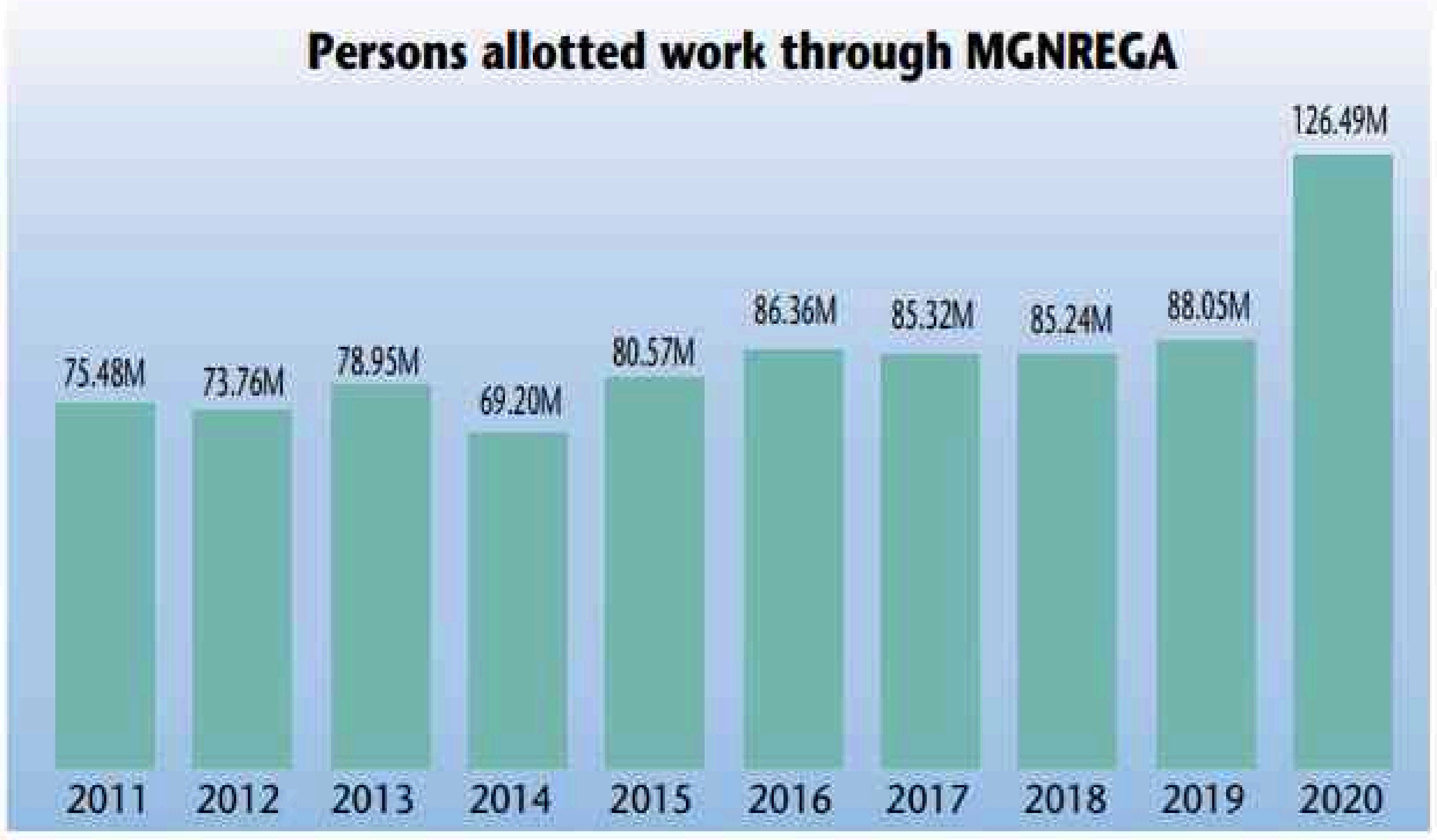
Other such social inclusion programmes include the Mahatma Gandhi National Rural Employment Guarantee Act, 2005, which provides at least 100 days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work. The number of people allotted work through the MGNREGA has witnessed a slight increase from 2011 to 2020 and a steep increase by over 60 per cent between 2020 and 2021 due to the pandemic. Overall, the scheme has fulfilled the demands of more than 99 per cent of the applicants consistently.

Corporate Contribution

In the private sector, CSR has played a significant role in enabling social impact programmes since 2014. While poverty is rarely seen as a primary focus, the funding of other thematic areas such as hunger, health, education, and skilling help to bridge the poverty gap within the nation.

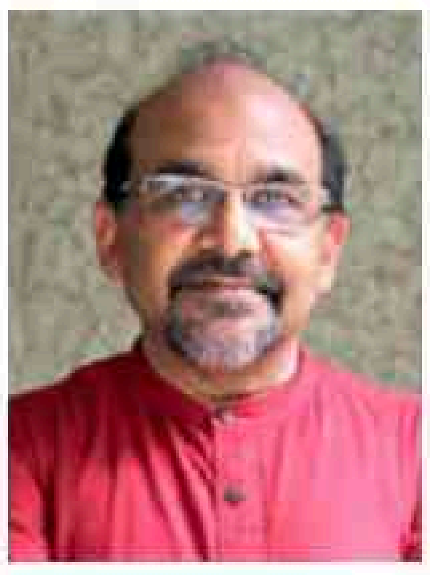
Community development programmes such as those set up by ONGC, Indian Oil, Infosys, and Bajaj Auto among others play a significant role in bridging the poverty gap. Additionally, projects such as the health care camps and the Construction of Skill Training Institutes by Larsen & Toubro, the construction of hospitals by Cadila Healthcare, and the construction of toilets by ONGC, all go towards helping bridge the poverty gap while improving the quality of life across India.

Through the efforts of social inclusion programmes, India has been able to consistently reduce the number of people under poverty. Using data such as the varying GDP and its accompanying impact on multidimensional poverty, both government organizations and corporates have the opportunity to direct their collaborated efforts to support these regions with the greatest need and help eradicate poverty in India.



Do corporates care about poverty?

Poverty cannot be abolished by continuing with a charity-driven fractured and unidimensional approach to philanthropy



SUDHIR SINHA

The global extreme poverty rate went up in 2021 after decades of progress, which was halted or reverted as hundreds of millions of people were pushed back into extreme poverty and chronic hunger due to the pandemic. As a result, the absolute number of poor in India also rose. According to the United Nations, 364 million, or 28 per cent of the Indian population lived in extreme poverty in 2019. The World Bank report (2020) says that this number will rise further by another 88-115 million. So, overall, millions of Indians have either become poorer or poor or are on the edge of becoming poor.

Therefore, achieving SDGs, in particular – Target 1.1 and 1.2 of the 2030 Agenda, which focus explicitly on addressing poverty in all its dimensions, seems challenging for the government alone. However, unlike Millennium Development Goals (MDGs), the Sustainable Development Goals (SDGs) result from a process that has been more inclusive than ever, with governments involving business, civil society, and citizens from the beginning. This time, development stakeholders – governments, businesses, civil society, and academia – agree on where the world needs to go. Consequently, corporations in India also have resolved to play a critical role in the process.

Corporations have addressed the SDGs as part of their CSR obligations. Firms link CSR activities, post facto, to different SDGs with assumptions that these activities help achieve the relevant goals. Although firms have made efforts, fulfilling those ambitions remains far from reality. While many companies report how they directly or indirectly contribute to other goals, SDG-1 for No Poverty is most common in CSR reports. Almost all CSR reports and corporate presentations claim to have made a positive impact on poverty alleviation.

On the contrary, the population living below the poverty line in India has risen since 2018, after making remarkable achievements in poverty reduction between 2006 and 2016. Therefore, companies' claims on poverty reduction remain contradictory. Moreover, these reports are not evidence-based, measured objectively and quantitatively against the suggested 14 critical indicators of seven targets under SDG-1. Arguably, while such indirect claims may not be ignored, the shallowness of corporate obligations to SDGs cannot be denied either.

Further, a qualitative investigation of CSR policies and reports of the Top 20 Indian CSR spenders on the National CSR Portal of the Ministry of Corporate Affairs presents a wide-ranging gap in understanding poverty, approaches, and strategies for addressing SDGs particularly Goal#1 for No Poverty. Also, the analyses provide the account of many ways to suggest corporations improve their commitments to eradicate poverty and help the country achieve targets 1.1 &1.2 of SDG#1. Finally, the analyses reflect on the following findings and suggest companies to convert words into action to help India come out of poverty by 2030.

Poverty – misunderstood as an economic challenge: Poverty is a perception invariably linked to people's economic deprivation, which economists consider an essential determining component for securing human welfare. However, welfare has been perceived differently, and there are many ways to describe and measure poverty. For example, while the UN focuses on poverty measured by monetised consumption and income, academicians and social scientists describe it as basic needs, capabilities, and human rights. These alternative subjective notions are interrelated and indirectly linked to the multidimensional poverty index, including various deprivations, such as poor health, lack of education, and inadequate living standards.

However, the methodology used to measure poverty is the World Bank's income and the consumption-based international poverty line, revised to $1.90 per person/day in 2015. Therefore, companies must understand and include the comprehensive dimensions of poverty while planning, implementing, measuring, and communicating them under CSR. Poverty cannot be abolished by continuing with a charity-driven fractured and unidimensional approach to philanthropy.

Commitment deficit: Poverty reduction suffers low commitment from corporations. The analyses show that the term 'poverty reduction' is missing in CSR policies. In fact, claims for CSR activities achieving SDGs come as by chance because SDGs have not been made integral to companies' business/CSR policies hitherto. Firms have failed to acknowledge how even their internal actions can positively impact poverty reduction as part of their obligations to SDGs. For example, companies can, and should, reduce the income gap among employees to reduce income inequality. Also, they can influence and support their suppliers (MSMEs)/contractors to pay living wages to workers to ensure no reversal of low-to-middle income population to

The author is Professor, Institute of Rural Management, Anand poverty, as was witnessed during the early phases of lockdown due to the pandemic.

Filling the gaps to make anti-poverty programmes work better: There are plenty of government-sponsored anti-poverty programmes and schemes, most of which are not appropriately implemented due to a shortage of funds and/or the incapability of the last-mile service providers. It has always been a big operational gap. Therefore, corporations can play a significant role in improving the efficiency and effectiveness of those schemes by just filling this gap instead of spending precious resources on executing CSR programmes, which are transactional and short-lived.

Partner with local NGOs: Companies should invest in NGOs to promote, support, and partner with them to focus on specific SDG areas that directly or indirectly address poverty reductions. In addition, companies with influential power can lobby for action-oriented SDGs aligned public policies that give social protection to communities. Social protection measures to protect people's health, jobs, and incomes are critical to avoiding and reducing poverty. Although new social protection measures were introduced in 2020 and 2021 by governments, they remain temporary and need to be made permanent in the long term.

Finally, whether businesses care about global commitment to end poverty by 2030 has mixed responses. Corporations must be credited for proactively understanding and agreeing to assume their role in forwarding the Global Agenda 2030. A PwC study (2018) confirms that 72 per cent of global companies mentioned SDGs in their annual corporate or sustainability report. Further, Indian companies have aligned their CSR activities with item#1 of Schedule VII on poverty and hunger of the Companies Act relating to CSR. However, on the other hand, the effects of the Corona virus pandemic have confirmed firms' failure of achieving SDGs and, in particular, poverty reduction, which was partly reversed. Only 25 per cent of companies were found to have included SDGs in their published business strategy. The top three goals reported by firms are SDG-8 (Decent Work and Economic Growth), SDG-13 (Climate Action), and SDG-12 (Responsible Consumption and Production). Conversely, the least frequently mentioned goals are SDG-2 (Zero Hunger), and SDG-14 (Life Below Water). Companies, therefore, need to be more balanced in their commitment and approach to SDGs. Else, accusations of 'SDG-washing' are already steaming up against corporations. ◆

Roadmap to create India's finest yet amid adversities

Most of the last two years have not only been strenuous years but also years where we learned to tackle the crisis with resilience and showcased collective strength to ensure seamless operations. The enormous loss of human life is alarming and distressing, to say the least. At a time when all the super-powerful countries are losing out on their people and economy, we stand strong as a robust model to the world owing to our government's exemplary crisis management strategy and prompt decision-making approach.

While on the one hand, the Covid-19 crisis has imposed enormous challenges on business organizations, on the other, it has also necessitated innovations, presenting organizations with opportunities to identify new business models that will allow them to survive through the crisis. This is what led us, at Radico, the country's largest Indian Spirits Company, to deliberate on how to bring about a reason to cheer for our consumers and patrons in these gloomy times.

Like for every business in the world, the uncertainty on tomorrow was mounting but it will not be off the mark to say that our dedication to our consumers and the idea of keeping them at the center of our deeds helped us stay aligned to our goal. The result of which was concluded in the creation and the launch of two of our most ambitious products **Royal Ranthambore Heritage Collection Whisky** and **Magic Moments Dazzle Vodka**. These products not only accelerated our premiumization drive that was set by a few of our world's best-selling brands (Magic Moments Vodka, 8 PM Whisky, Rampur Indian Single Malt, and Jaisalmer Indian Craft Gin) but turned out to be real game-changers in the liquor industry as a whole.

COVID-19 brought fast-moving and unexpected impacts for which many existing crisis plans and teams were unprepared. But by learning the right lessons from the pandemic and building resilience for any other crisis, we have proven and presented a formula to the world on how to turn various disruptions to our advantage.

AMAR SINHA, Chief Operating Officer
Radico Khaitan Ltd

"Avery Dennison leaving no stone unturned in Community work"

The Indian subsidiary of global material science company, Avery Dennison, has been at the forefront of providing support to local communities close to its operational hubs in the country with a slew of defining programmes. It has been quite proactive in contributing to society in the area of Women Empowerment, Education and Sustainability, and has been making some meaningful community contributions during COVID-19 pandemic. They are ready to further expand the scope of its programmes in DE&I and sustainability. **Saurabh Agarwal**, Senior Director & General Manager, Labels & Packaging Materials, South Asia - Avery Dennison and **Manvi Sushil**, HR Director, South Asia - Label & Graphic Materials share details and their views...

SAURABH AGARWAL

Your group has been spearheading the community development exercise on a large scale for a long time. Please share some details on that.

Avery Dennison has always been committed to strengthening the communities and environments where we operate. We focus and lead these efforts in the core areas of **our CSR ideology which comprises Education & Skilling, Empowerment of Diverse groups especially Women, and Sustainability**. We regularly support organizations in local communities by providing funds, learning & skilling opportunities to diverse community members as well as employees for volunteerism.

Our education-specific initiatives include opening a community library and computer center in Basai Manesar near Gurugram Haryana in 2019 in association with READ India and then in 2021, we expanded the horizon and opened two more learning & skilling centres near the Ranjangaon area of Pune, Maharashtra. There is another project in Pune in collaboration with Magic Bus Foundation that provides academic support to 2000 adolescents studying in Grades 6 to 10 at 9 schools in 7 villages in Ranjangaon Block, Pune District, Maharashtra. For women empowerment, we have sponsored the **"Swabhiman Project"** to Empower Women through Reproductive Health Education and Entrepreneurship Development initiatives in Sarhaul and Dundahera villages in Gurugram in partnership with Smile Foundation.

Our sustainability linked CSR theme has a host of defining projects. These include the Matrix recycling program (launched in March, 2021) in Delhi and the NCR area in partnership with India cares. We took the target of recycling 700 metric tons of material from our converters which were transported to an energy plant to generate electricity. Another significant initiative is the Utilization of Plastic Waste in Road Construction with 'Earth-Watch Institute'- a 3-year project which began in 2019.

Having driven all these CSR initiatives, the **values** of our organization have acted as a guiding force. Our community programs are closely aligned with our CSR philosophy, and their impact on the local community is very, very significant.

Can you recall the beginning of your social initiatives in India.

Through Avery Dennison Foundation, we have a long history of contributing to the communities where we live and work. We are always committed to Corporate Social Responsibility and employee volunteerism. We began our social initiatives in India in 2010 with Smile Foundation, working on a theme that is very close to our hearts - girl child education and empowerment. Throughout the years, Smile Foundation and our organization have collaborated on several other community development projects, such as our current Swabhiman Project for women empowerment.

We also launched what has become one of our flagship programs, the **InvEnt (Spirit of Invention Scholarship) Awards** in 2012. It is an extensive CSR program sponsored by the Avery Dennison Foundation that recognizes and rewards invention, innovation, and excellence and has been running successfully for a decade now.

In 2017, our social initiatives also grew beyond education and learning for students to include more unique programs such as supporting children from underprivileged sections suffering from cancer, for which we partnered with Cankids, Kids can bring a change for childhood cancer in India. The programme worked through Non-Formal Education- Learning Activity Clinics in OPDs or school rooms in hospitals. Around the same time, we also expanded into women empowerment and skill development and partnered with NSDC (National Skill Development Corporation) and NSDF (National Skill Development Fund) to impart Skill Development training to 500 Women candidates in Ranjangaon, Pune location in Maharashtra and Delhi NCR.

MANVI SUSHIL

Education seems to be your key focus area for your social sector programs. Any specific reason?

Education is one of the primary sectors where we commit our-

MAGIC BUS
BALPANCHAYAT GROUP
JEJURI

selves globally. Education helps to elevate society as a whole and therefore we focus on providing opportunities for education for children, the inclusion of minority communities, and creating awareness amongst stakeholders in order to create a sustainable world. These initiatives, coupled with our women empowerment programs will help women to build confidence, bring about a greater sense of awareness, become independent, and earn livelihoods. We believe economic empowerment can also take the form of efforts to bridge the economic gap. Education and women's empowerment are big enablers for this. At Avery Dennison, we believe that not just intent but bold actions will make a difference.

Post Corona, you have introduced a host of new programs. Please share some details on them.

Our company has always stood united with the local communities within which we operate. While the government was making its best efforts to contain the spread of COVID-19 and keep each person safe, Avery Dennison India introduced a series of social impact programs to support and assist the communities to reduce the impact of the pandemic. To help ensure that government frontline workers continue to deliver crucial services, we worked with local authorities and partners to provide medical equipment and other desperately-needed supplies:

Critical Care life-saving infrastructure: Including oxygen concentrators, ventilators & cardiac ambulances across Gurugram, Pune, and Greater Noida.

Hospital Infrastructure: In the form of Semi Fowler beds to support the rural medical centers in Uttar Pradesh, a portable Hospital Extension in the NCR area as well as funding a project to support in opening a Medical Health Centre for COVID-19 relief measures for the local communities in Pune.

Food and Essential Supplies: Provided raw food material to underprivileged people in a nearby village of our operations in Gurugram , Pune, Bangalore, and Kolkata regions.

In addition to this, we distributed essential items i.e. Masks, Sanitizers, Gloves and PPE kits to the local communities and rural areas in Pune, Bangalore, Gurugram & Kolkata.

We at Avery Dennison, in collaboration with the Avery Dennison Foundation, did our part in helping employees, families, and communities in need during these difficult times of COVID-19.

Do you think the government's CSR mandate has given a more disciplined approach to corporate's involvement in the social sector?

The government's CSR mandates have definitely brought in better structure to the corporate world's involvement in the social sector. We are moving away from the idea that CSR is a philanthropic activity and instead it becomes a moral and legal responsibility as a member of the social ecosystem in which we exist, operate in, and benefit from. And to ensure that such a responsibility is carried out, legal mandates and guidelines play a significant role in ensuring transparency, accountability, and discipline. India's approach to legally mandate corporate social responsibility and the several examples of various organizations including our own doing great work both for social development and in times of crisis puts India on the map for this partnership of the corporate & social development sectors. It serves as a benchmark to which we hold ourselves accountable as an industry and in recognizing where we can do more.

How do you intend to take your CSR engagement in this country to the next level?

Some of our ways to take CSR engagement in India to the next level would be based on the following considerations: First, Understanding the stakeholder expectations through a structured engagement process and communication strategy and leveraging this understanding to develop and implement outcome-based and impact-oriented projects in the selected areas.

Second, to envision, execute and manage long-enduring projects with a wide geographical spread and larger social impact with a focus on inclusive growth of marginalized and deprived sections of the society.

Third, besides the successful execution of our current community development projects in Haryana, Maharashtra, Madhya Pradesh, Tamil Nadu, Karnataka, and West Bengal, we are looking at expanding these projects to **Uttar Pradesh**. We are partnering with READ India to open a community library and resource center to support local communities in Uttar Pradesh. The Programs include Digital Literacy, Early Childhood Development, Career Counseling for Youth, and Personality Development Workshops. There will also be interventions on women's empowerment and Financial Literacy, as well as health awareness programs and nutritional talks for the local community.

Fourth, we are also looking to expand efforts on the sustainability front. Here our focus is to increase recycling in India to prevent waste from going into landfills as well as educate and provide better livelihoods to the waste collectors through the CSR programs.

We also believe that all individuals deserve to be treated fairly in an inclusive society with equal access to resources and opportunities. A larger section of the LGBTQIA+ community continues to remain excluded and unaccepted by society. This invites the need for a socially inclusive initiative targeted towards transgender individuals and to strengthen our support to this community, we partnered with Connecting Dreams Foundation in sponsoring a skills development program, Project Transformation, for 45 transgenders in the NCR area. This initiative focuses on empowering transpersons, starting from building knowledge in IT among other skills, and moving towards mainstream employment or entrepreneurial opportunities.

Currently, 45% of our workforce is involved in community development through the SEWA (our employee volunteering group) and we are expanding it and enhancing it even further. We offer hybrid volunteer opportunities where employees can volunteer both on the project site and virtually. ■

For more details on CSR initiatives, contact **Bhawna Luniyal** <bhawna.luniyal@ap.averydennison.com>
Website: www.averydennison.com

Well-being of all

By forging partnerships and leveraging government schemes, corporates lift thousands out of poverty

JSW FOUNDATION

Lighting up their lives

The 17 Sustainable Development Goals are interconnected and invariably accelerate one another. For example, JSW's work to achieve goal 2 is working to provide a nutritious food supply, which aids goal 3's overall health and well-being. With JSW's footprint across Himachal Pradesh to Tamil Nadu and Rajasthan to West Bengal, challenges across all regions vary and require unique analyses and solutions to the problems of water shortages and food security.

Sustainable agriculture is the key to ensuring food security. JSW Foundation helps through a multipronged strategy which includes strengthening institutional capacities and enhancing market capacities by rehabilitating existing value chains, supporting integrated farming systems and strengthening value chain development, thereby contributing towards the improvement of livelihood of farmers and other rural communities. By 2024, the Foundation strives to reach out to 100,000 farmers while focusing on '4 Vs', ie, minimising Value loss, maximising Value creation, maximising Value capture and Value-added services

The concerted efforts put in by the Foundation are likely to touch goals 2.3 and 2.4 that vie to ensure sustainable food production systems and implement resilient agricultural practices and double the agricultural productivity and incomes of small-scale food producers.

Well-being for all is one of the key goals under the SDG framework. JSW Foundation is steadfast in its commitment to strengthen the availability and accessibility of affordable healthcare services ranging from outreach services to static primary health clinics and state-of-the-art multispecialty hospitals in rural areas. In addition, it supports existing government healthcare facilities. It strengthens health and nutrition services by forging strategic partnerships with government and international public health organisations while reaching out to women, children, the elderly and other vulnerable groups.

JSW shakti
Women only BPO | VIDYANAGAR
A JSW FOUNDATION INITIATIVE
A MISSION TO EMPOWER WOMEN

JSW Founation's women only BPO: empowering women

Touching upon goals The key strategies include strengthening preventive and curative health care services by improving public health facilities, setting up multi-speciality hospitals and clinics, conducting outreach health camps and supporting supplementary nutrition at Anganwadi centres. The Foundation's interventions directly touch upon goals 3.1, 3.2 and 3.8 while working to reduce maternal mortality, curb preventable deaths of new-borns and children under five years and achieve universal health coverage, including financial risk protection, access to quality essential healthcare services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

Various independent studies in India put the below-average quality of education under the spotlight. The Foundation works with Anganwadi centres and schools to contribute its bit to improve the situation by providing for infrastructure & basic facilities. The focus has been on ensuring students have access to quality preprimary education, as well as complete, equitable and quality primary and secondary education. Building and upgrading education facilities that are child, disability and gender sensitive and providing safe, non-violent, inclusive and effective learning environments for all is extremely important, as is expanding the number of scholarships for enrolment in higher education. The availability of qualified teachers should also be increased. With its current focus, the JSW Foundation strives to touch upon goals 4.1, 4.2, 4.6, 4a, 4b and 4c.

The Swachh Bharat Mission launched by the government of India is an endeavour in the right direction. The Foundation is aligned with this mission and has chosen to do its bit by reducing and eliminating the practice of mixed waste from its townships and DIZ villages. Efforts began in 2015 in Vijayanagar and from 2018 have expanded to cover seven more locations.

The Foundation believes forging partnerships and leveraging government schemes is the key to hasten the process. Therefore, a dedicated intervention called 'Margdarshak' is being implemented to connect the needy to the applicable social entitlements.

The programme is being implemented across 12 locations of JSW and has been able to reach out to over 182,000 individuals through close to 300 volunteers with benefits received in more than 135,000 cases. Key sectors focused on include social inclusion, healthcare and livelihoods through various insurance schemes, Mediclaim, pensions, scholarships, subsidies, cash transfers, loans, housing, etc.

All of the preceding objectives contribute to the achievement of No Poverty Goal 1.

The JSW Foundation has initiated various livelihood generation programmes in its areas of operation – for example the setting up of rural women only BPO and generating mainstream business for the same; facilitating farmers' interest groups and production companies and actively linking them with markets while focusing on best practices for cultivation, harvesting and post-harvest handling; and promoting traditional crafts and fast-moving consumer goods through self-help groups and linking the same to the markets.

In order to augment the employability of young people, the JSW Foundation, through its dedicated training centres 'JSW Skill Schools' has been relentlessly working to fulfil its ambition to raise strong cadres of a trained workforce which would cater to the requirement of the industry in India and abroad.

The interventions, in the longer run, would serve to lift thousands out of poverty thereby contributing to the larger goal represented by the SDG framework.

◆

BAYER FOUNDATION

Having a field day!

Agriculture accounts for a quarter of the Indian economy, employing over 60 per cent of the labour force. Geographical diversity across the length and breadth of the country and the diverse agro-climatic zones provide opportunity to grow a wide range of crops. Arable land being finite, achieving food security to meet the demands of a growing population means increase in crop production and productivity.

In alignment with SDG-1 ('No poverty'), Bayer Foundation India has undertaken the project to enable small holder farmers maximise output and enhance farm income.

The key objectives of the project are to introduce farmers to advanced technologies and better hybrids for improving crop productivity; and also train farmers on recommended agronomy practices and effective on-farm operations through demonstration plots. The project implemented during *kharif* and *rabi* season 2020 was spread across 450 blocks in 90 districts covering 18 states to benefit over 150,000 small holder farmers. Its major focus was on rice, corn, pearl millet and an array of vegetables (tomato, hot pepper, cabbage, cauliflower, beans).

Given the spread of locations, collaborations and partnerships were the key to achieving the set objectives. The Foundation employs multiple models of implementation to ensure last mile delivery. The three models were: work directly with the NGO partners for farmer mobilisation and training; engage an implementing agency to impart the trainings, while the NGOs extend support to mobilise the farmers; and hire field staff to impart training, while the NGOs extend support to mobilise the farmers.

REDMI NOTE 8
AI QUAD CAMERA

Bayer Foundation enables small holder farmers maximise output and enhance income

In partnership with 34 NGOs and an implementing agency, knowledge on recommended agronomy practices and advanced technologies was transferred to the farmers. Of the 18 states, eleven states contributed to over 70 per cent of the beneficiary base in the project.

Through 18 master training sessions, over 450 staff of NGO partners were equipped with appropriate information on the technology and recommended agronomy practices for the crops. Trainings also encompassed on-farm safety, safe use of chemicals, stewardship practices and reinforcing Covid-appropriate behaviour, providing a complete package to the farmers.

The master trainers were provided guidance to choose appropriate demonstration plots. Across the four crops, over 10,000 demonstration plots were identified.

Field days conducted for over 73,000 farmers validated the importance of following the recommended practices. The RoI (return on investment) was demonstrated during the harvest days conducted for over 48,000 farmers. Throughout the cropping season, agronomy advisory was provided to the farmers. The components of the project were designed such that farmers are equipped to adopt the appropriate practices season on season, ensuring sustainability and resulting in improved on-farm productivity translating to enhanced incomes.

While the pandemic limited project monitoring and farmer reach, it provided an opportunity for innovation in the form of digital technology. A mobile application was developed in partnership with a third party organisation, for gathering data for baseline studies as well as for monitoring the project. Data points on demographic data of farmers, plot details, agronomy practices, go-to market strategy served as a baseline. Throughout the cropping season, the field staff regularly uploaded photographs of the demonstration plots and the trainings imparted through field days and harvest days. Geo-tagging feature integrated in the app ensured data veracity. While the field staff recorded data in the mobile application, a web-based version was made available to the programme managers to monitor the project progress, create real time dashboards and address gaps as appropriate.

Key outputs and outcomes The programme was implemented in 18 states, 92 districts and 448 blocks. It partnered 34 NGO partners for on-ground execution and conducted 18 master training sessions, equipping over 450 staff with appropriate knowledge. The training benefitted over 150,000 farmers directly. About 30 per cent of farmers trained through the programme were women.

"I am happy that the training helped me to get more information on sowing techniques, correct transplanting methods and effective water management," says Jama Pedenti, a paddy farmer from Kolnara, Rayagada, Odisha. "This will surely help me to have a better produce in the future". Adds Bhawani Shankar, from Karada, Rajasthan: "The training will help me recognise and fight various millet diseases, which will assist me to protect my crops and have a better harvest."

The first version of this project was implemented in 2019, in three states catering to a single crop – rice. A clear indication in yield increase, translating to increased income for the farmers was the impetus for the company to implement the project in 2020. The model being replicable, it was scaled to 18 states and four different crops. As the Foundation continues to work on the project, it will expand to benefit more small-holder farmers and provide crop advisory. ◆

SAP

Code digital inclusion

Code Unnati, SAP's multi-pronged flagship digital literacy and IT Skills development programme, was launched in Bengaluru, Karnataka, in June 2017; today, it runs in many states of India. The programme delivers on all the three aspects of SAP's CSR Charter and offers literacy in digital and IT skills to foster digital inclusion in India.

Code Unnati is premised on the mission of powering opportunity through Digital Inclusion. It is a collaborative effort between SAP, CSR wings of different corporate companies and non-profit organisations. The project collaborates with corporate CSRs, with the objective of supplementing the vision of nation-building through digital literacy and IT skills development. It also interacts with Central and state governments and planners like NITI Aayog.

In 2020, the programme adapted to the global pandemic and the Code Unnati mobile application was launched to offer digital literacy to anyone from the comfort of their homes. The key objective of the mobile app is to impart quality training and then enable employment.

Code Unnati is premised on the power of collaboration between the private sector and the government. It imparts and promote quality education, thus contributing to creating sustainable and inclusive economic environment. It aims to propel digital inclusion and intelligent economy in India. One important goal of Code Unnati is to support and strengthen the government of India's Nation Building missions of 'Digital India' and 'Skills India'. Code Unnati is aimed at educating the youth and the diferently-abled to build a digitally empowered community and create employment opportunities.

SAP CSR provides funds to the NGOs to run the programme and bring in teachers and train them.

During the pandemic it faced some challenges too. To begin with, on-ground/classroom training has been halted from March 2020 onwards. And, virtual training with students from rural areas has been found to be difficult, as connectivity and smartphones are not available for school students. This has adversely impacted youth skilling and internship.

Code Unnati is a collaborative model, wherein SAP CSR partners with other corporate CSRs (such as L&T, ITC, KEC International and M&M) and various governments (Karnataka, Rajasthan), as also ministries and institutions (skill development; NITI Aayog, etc). SAP customer/ corporate CSRs play a vital role in the partnership.

Key methodologies SAP's CSR initiatives are in advanced curriculum and innovative pedagogy, requiring mentorship from SAP employees for the students. In silos, SAP, alone could not have achieved the digital inclusion for India.

SAP's NGO partners are Pratham InfoTech Foundation; NASSCOM Foundation; EduNet Foundation; UNDP (CSR Trust for SDGs in India); and K.C.

Mahindra Education Trust (KCMET).

SAP uses a few key methodological frameworks to set up the transparent mechanism. One such framework is IRIS and Logical Framework (input, activities, output, outcome, and impact-model). This model ensures that the programme is on track, and KPIs (Output, Outcome, Impact) are measured *vis-à-vis* optimum budget usage. Both these frameworks combined ensure that higher social return on investment (SRoI) is achieved. IRIS framework measures the 'health' of the programme on a quarterly basis. The monitoring & evaluation (M&E) system is devised at the beginning of the year. Then, there is the quarterly qualitative indicator reviews, which are on project outreach areas and get carried out by SAP CSR team and Ernst & Young.

One of the key lessons about the large socio-developmental programme is the 'collaboration' and power of partnership among private sectors. Many corporate or private sector companies work with similar vision. The collaboration and partnership between like-minded corporates can help in scaling up of programme and its replication at different locations much easier.

SAP works with six private sector companies. This enables it to reach to 1 million+ youth towards imparting quality education, vocational employable digital skills in an accelerated way in less than three years time. ◆

RBL BANK

Need of the hour

RBL's meetings with farmers help them overcome many hurdles

Nudge Life Skills Foundation through its project Asha Kiran targets the alleviation of poverty in the 2.5 million rural population through food security and livelihood access through welfare schemes in Uttar Pradesh. They aim to do this through facilitating welfare scheme access to rural families, and access to MGNREGA, providing access to welfare schemes to migrant and construction workers, and handholding them to create self-employment. RBL Bank, through its CSR, supports the poverty alleviation of a minimum of 50,000 households in rural Uttar Pradesh.

Its goals included welfare access to rural families; access to MGNREGA; welfare access to migrant & construction worker families; sustainable livelihoods to the poorest rural families and employment opportunities for migrants in rural/urban areas. Women are the centre of all the interventions and the outcomes are measured from the control group and agency level as well.

The project started in October 2020, after realising the dire need of livelihood generation due to reverse migration caused by Covid-19 across India. The state of UP, being the most populous, was the worst hit in this regard, especially in connection with reverse migration. Here, large-scale intervention to eradicate poverty and also to provide work to the large rural population who returned to their homes, was required. The project is currently supported till 2023, and is expected to eradicate poverty in the homes of 50,000 with the RBL Bank's CSR support. It is expected to affect the lives of 2.5 million people across UP with extended support by other corporate and philanthropic donors.

Getting back on track Nudge Life Skills Foundation has collaborated with Magic Bus India and Haqdarshak in connecting the rural population with welfare schemes and is expected to provide a minimum of ₹10,000 per household in a year through government welfare schemes, and a minimum additional income of ₹20,000 per household per year through goat rearing, backyard poultry and agriculture over the project duration of three years, with the help of the Goat Trust, UP State Rural Livelihood Mission, Heifer and TCL.

There were many challenges involved, including Covid and the panchayat elections, which caused supply and demand side issues leading to poorer achievement in FY22. However, the situation is getting back on track due to the launch of specific initiatives by the government of Uttar Pradesh to strengthen and leverage MGNREGA in the state. These include creating individual assets for 5,00,000 ultra-poor households, 100 days of employment to 25,00,000 households and increasing women participation through Mahila Mates.

There was the difficulty in mobilising households due to Covid; also, farmers did not want to take many risks. There were delays in on-ground mobilisation which meant farmers had already sown rice in the land available. Field visits were not conducted due to lockdown/other restrictions. Mitigation strategies included steps such as training in small groups and the provision of financial incentives to farmers to diversify (50 per cent). ◆

TATA CHEMICALS

Going to the roots

Agriculture employs about 40 per cent of India's workforce, but contributes only 17 per cent to the GDP (according to the 2021 census). Making agriculture sustainable is necessary for long-term benefits to farmers and other stakeholders. Understanding the need of farmers, Tata Chemicals Ltd (TCL) has been working to enhance their income by implementing diversification of crops, management of soil & water (micro irrigation, macro & micro watershed), governance of water (micro irrigation), integrated crop management, farm mechanisation, post-harvest management and farmer institutions.

In addition to low income, climate change has drastically affected farmers. Therefore, it is necessary to ensure its impact on agriculture is minimal but in a sustainable way. Hence, sustainability has become the byword in agriculture. Efforts to do so have been on for about a decade. The goal on the commercial side has been to make the business feasible and scalable.

Tata Chemicals Society for Rural Development (TCSRD), the non-profit arm of TCL, focuses on poverty alleviation by promoting livelihood opportunities, both linked to farm and nonfarm activities. The programmes have been designed to improve the land, introduce improved agriculture practices and livestock management systems.

The sustainable livelihood programmes of TCL aim to improve the lives of the rural people and help in poverty alleviation. These interventions help in creating employability and entrepreneurship for the rural community.

The project is in line with TCSRD's objectives that work with communities in the vicinity of their plants. Their strategy focuses on ensuring sustainability in ongoing livelihood practices in the region through capacity-building and establishing strong local institutions. That takes forward the work of agriculture development, salinity mitigation, market linkages and scales up promising practices in agriculture, horticulture, animal husbandry and other livelihood options.

TCSRD is working on a project – Climate Neutral Village Project – to mitigate and calculate the positive impacts of sustainable land & water management practices. The goal of this project is to facilitate communities to adopt a lifestyle which enables them to cope with the effects of climate change. Other than climate change, TCSRD has undertaken several other agricultural methods to strengthen farmers and the community.

TCSRD's Climate Neutral Village Project: positive impact on land and water management

The real challenge Through agriculture interventions like the Centre for Sustainable Agriculture & Farm Excellence (C-SAFE), TCL is engaged in helping small and marginal farmers enhance their productivity.

While implementing these initiatives, the real challenge is of sustainability. To address this, various groups like the village committees, community members, self-help groups, etc jointly work as the medium of implementation. Capacity building of these groups and networking activities with other NGOs aids in replication and sustainability of the initiatives.

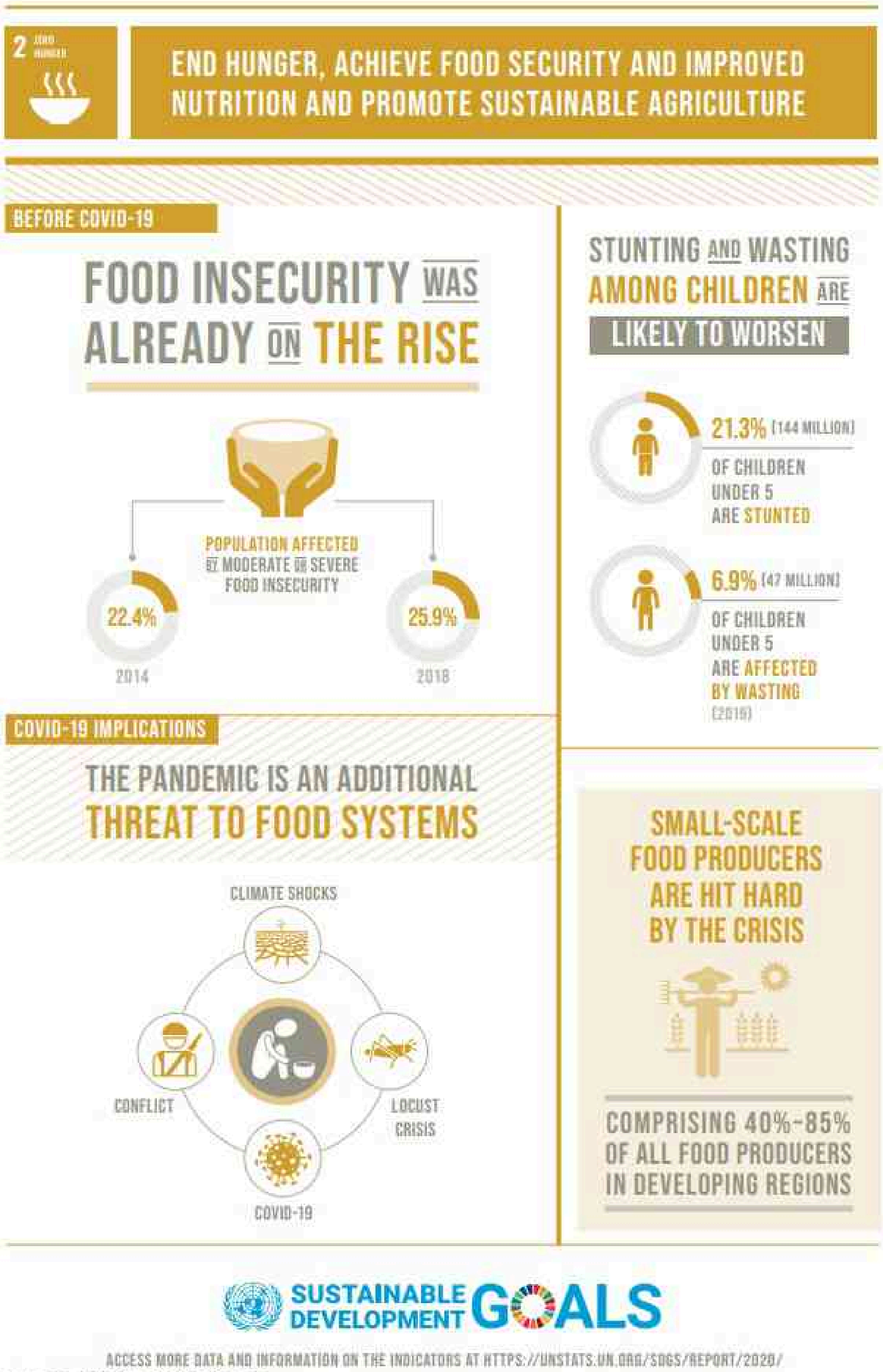
The interventions led to a threefold increase in income levels for more than 250 farmers from ₹7,400 per acre to ₹25,200 per acre, improving yield by four quintals per acre with an additional revenue of ₹7,200 per acre. There was a ₹200 per quintal increase to farmers with additional revenue of ₹4,400 per acre. Input cost was reduced through the implementation of best practices, which saved ₹3,000 per acre and reduced outbound logistics on the harvested crop (savings of ₹1,672 per acre).

The finance linkages ensure a value add to farmers not being subject to high interest rates on input credit as the Farmer Producer Organisation (FPO) procures funding on bulk inputs from NABKISAN. There was a successful pilot of insurance products that reduce crop damage risk for farmers. Market linkages allow the consumer to enjoy safe, nutritious, branded and true-to-type products for eg, rice samples are residue-free as per FSSAI and thus there is scope for establishing one's own rice brand under the health and wellness segment.

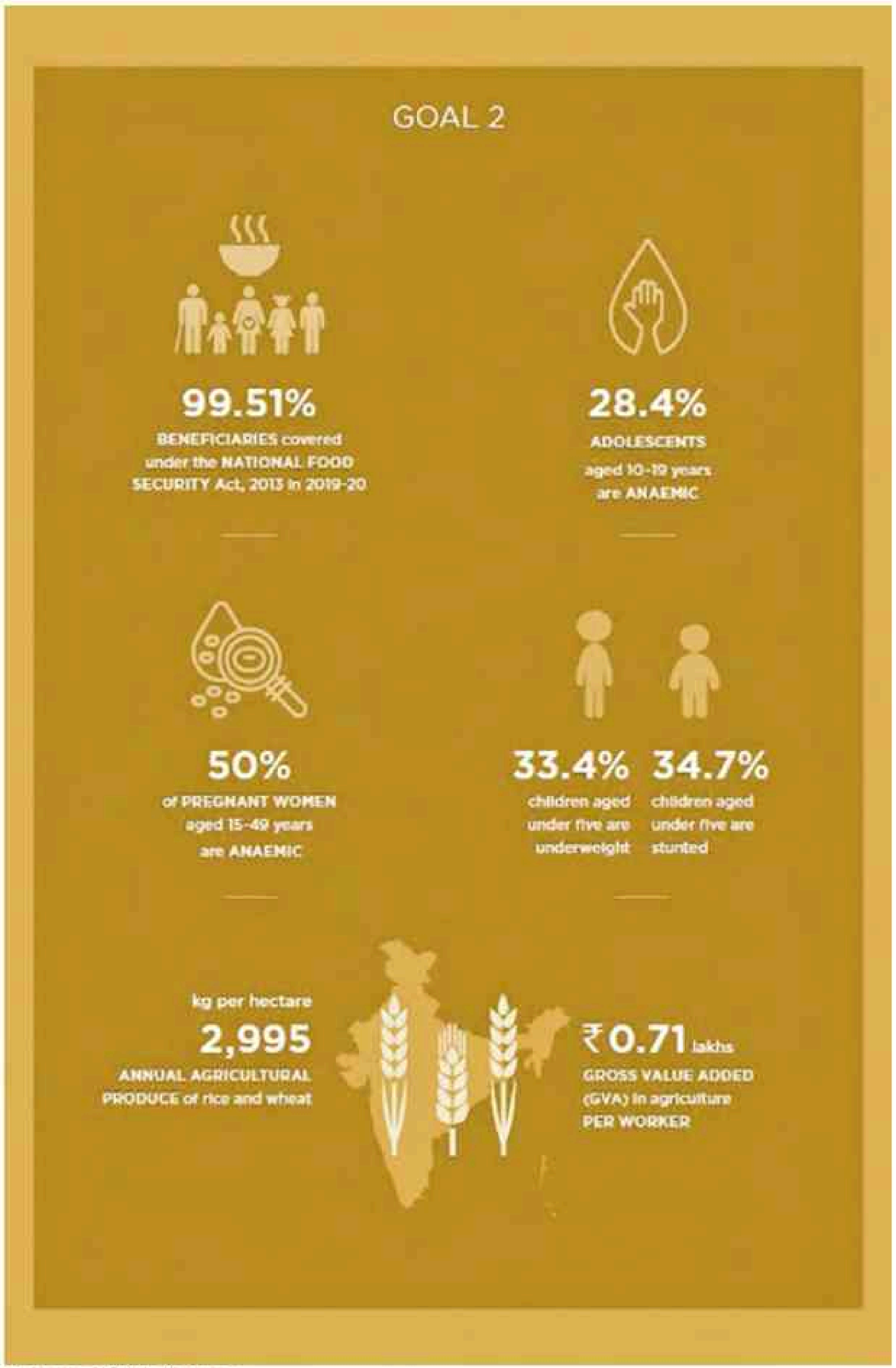
TCSRD's main objective is to enhance the income of farmers through integrated agriculture development programmes. They aspire to develop more sustainable institutions, introduce appropriate technology and thereby bring in a behavioural change in the overall target population.

CSAFE – centre for agriculture and farm excellence – is being formed as a centre of excellence to replicate the demonstration of various models established by TCSRD in various parts of the country and scaling up of those initiatives pan-India with a focus on sustainable agriculture by developing institutions like FPO & women agri-entrepreneur and linking them with digital tools. ◆

Goal: End hunger, achieve food security and improved nutrition and promote sustainable agriculture in all its forms everywhere


2 ZERO HUNGER
END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE
BEFORE COVID-19
FOOD INSECURITY WAS ALREADY ON THE RISE
POPULATION AFFECTED BY MODERATE OR SEVERE FOOD INSECURITY
22.4%
2014
25.9%
2018
STUNTING AND WASTING AMONG CHILDREN ARE LIKELY TO WORSEN
21.3% (144 MILLION) OF CHILDREN UNDER 5 ARE STUNTED
6.9% (47 MILLION) OF CHILDREN UNDER 5 ARE AFFECTED BY WASTING (2019)
COVID-19 IMPLICATIONS
THE PANDEMIC IS AN ADDITIONAL THREAT TO FOOD SYSTEMS
CLIMATE SHOCKS
CONFLICT
LOCUST CRISIS
COVID-19
SMALL-SCALE FOOD PRODUCERS ARE HIT HARD BY THE CRISIS
COMPRISING 40%-85% OF ALL FOOD PRODUCERS IN DEVELOPING REGIONS
SUSTAINABLE DEVELOPMENT GOALS
ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



Source: NITI Aayog

The road to achieving Zero Hunger has been a long-sought goal that India is still working to meet. This SDG aims to end all forms of hunger and malnutrition by 2030, ensuring everyone has access to sufficient and nutritious food all year round. While the goal is direct, the aim also incorporates various factors, including promoting small-scale farms, sustainable agriculture, and equal access to land, markets, and technology. This goal is expected to be achieved through advancements in multiple areas, including increased agricultural productivity, genetic diversity of seeds, plants and farmed animals and strengthened capacity for adaptive agriculture.

India's targets as detailed by NITI Aayog's SDG India Index and Dashboard for 2020-2021, include:

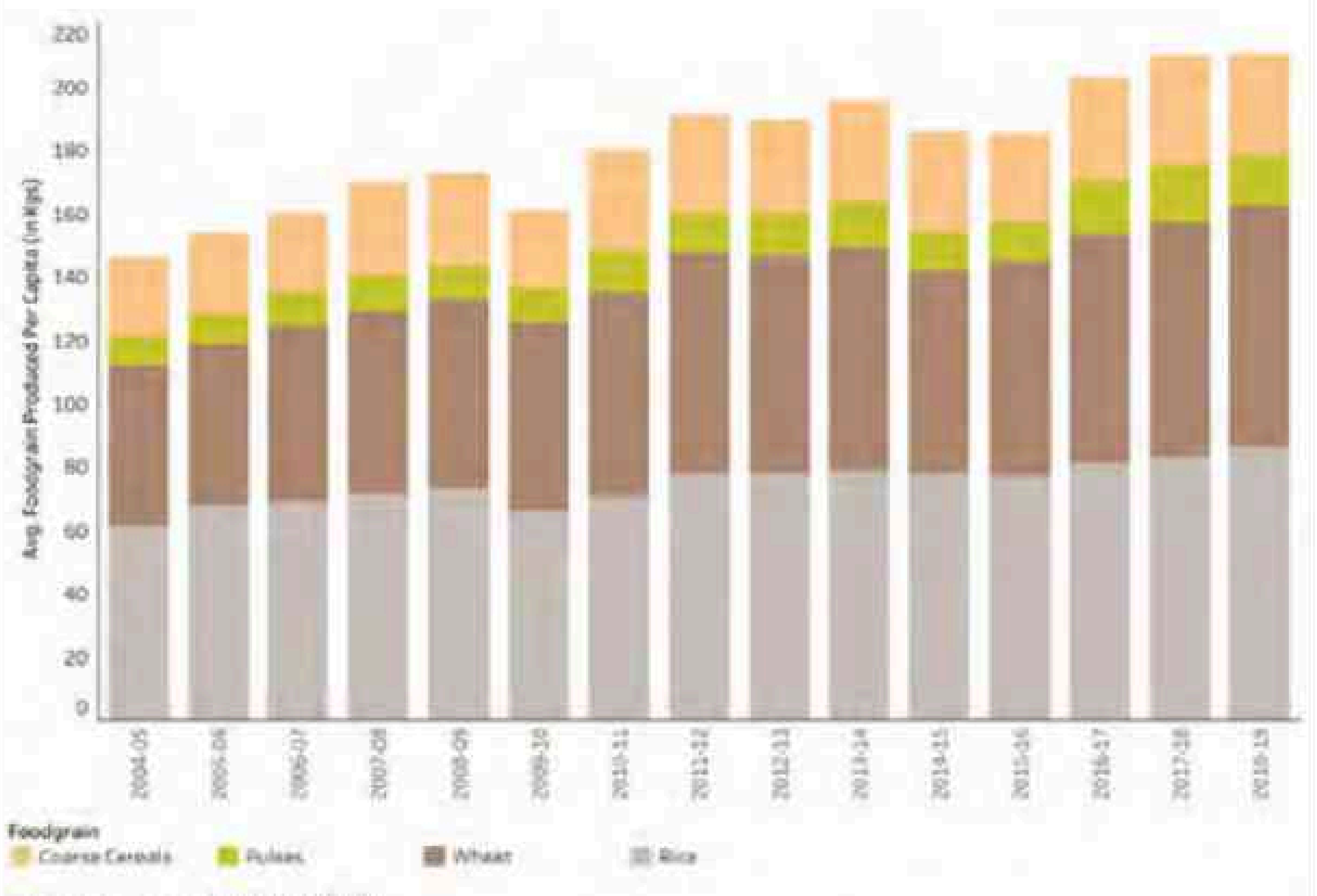
2.1 End hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious, and sufficient food all year round

2.2 End all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons

2.3 Double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists, and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

2.4 Ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters and that progressively improve land and soil quality

2.5 Maintain the genetic diversity of seeds, cultivated plants, and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional, and international levels, and promote access to fair and equitable sharing of benefits arising from the utilisation of genetic resources and associated traditional knowledge, as internationally agreed.



Source: RBI

Based on these goals, as of 2021, the UN SDG report gave India a score of 54/100 for Zero Hunger and noted that food distribution-related efforts were stagnating. This placed India at the 125th position out of 165 countries, a sign that significant challenges remain.

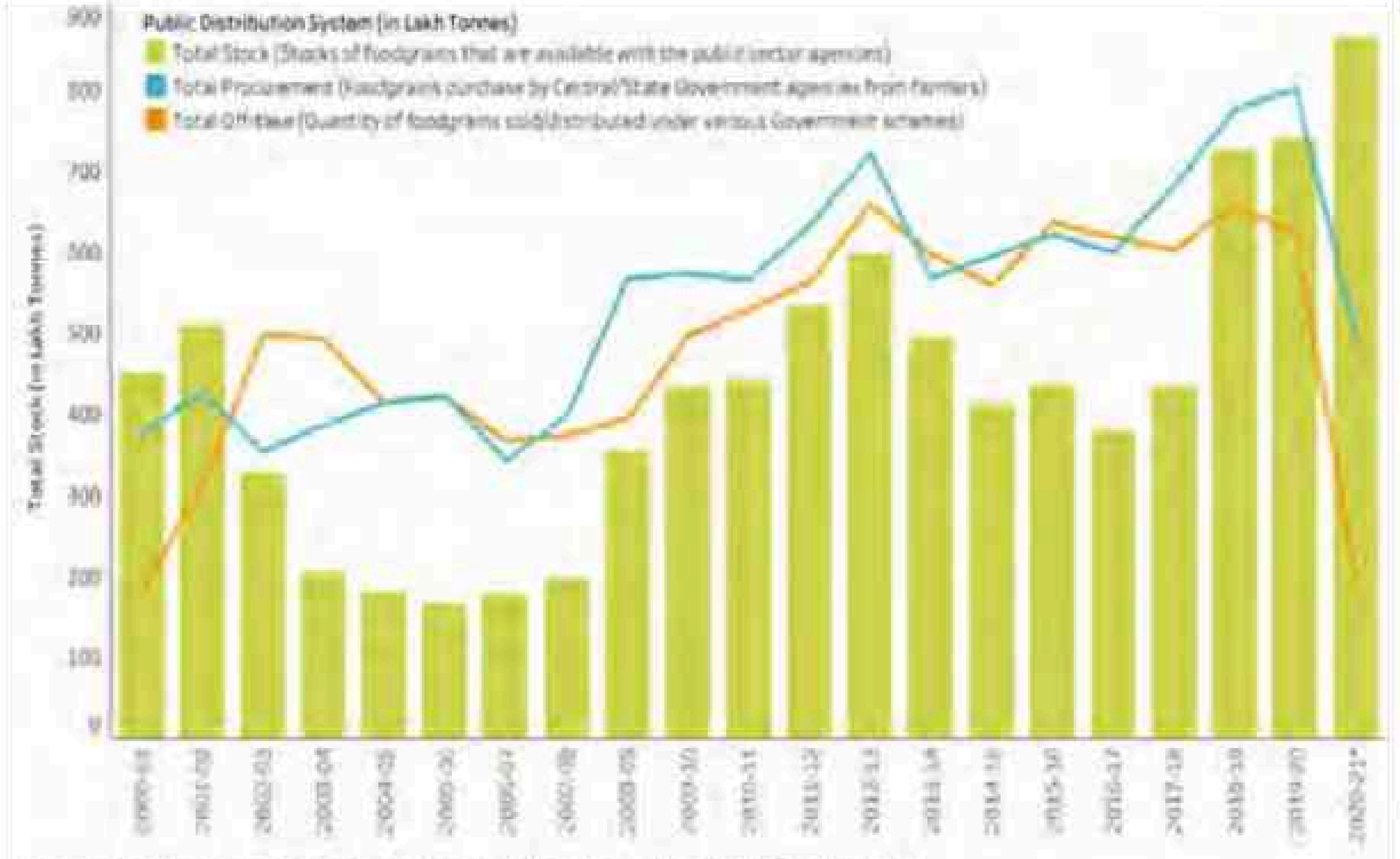
India has historically been known for its agricultural production. However, since 2004, the nation's agricultural land has remained relatively consistent at approximately 1,240 lakh hectares. Despite this stagnation, there has been a constant increase in agricultural yield and production over the last decade, along with the rise in food grain stocks. In the last 15 years, production has increased by 44 per cent and the yield of food grains has also increased by 38 per cent.

With the increase in production of food grains, food production per capita has also increased. In 2018-19, the average food grain production per capita reached 210 kg, a noticeable rise from previous years. This increase was also apparent in common grains (coarse cereal, pulses, wheat, and rice), with pulses showing the most significant increase of 68 per cent, followed by wheat (50 per cent). The least improvement has been in the coarse cereals at 28 per cent.

Public distribution system

This increase in food grain production has benefited nationwide efforts to provide subsidised food under the Targeted Public Distribution System (PDS). The National Food Security Act (NFSA) 2013 legally entitles up to 75 per cent of the rural population and 50 per cent of the urban population to receive subsidised food grains under the Targeted Public Distribution System (PDS). Through NFSA initiatives, nearly 19 states have closed the gap between their planned and actual subsidised food distribution. However, the high population states of Madhya Pradesh, Bihar, Uttar Pradesh, and some Northeastern states, including Manipur and Nagaland, have a long way to go.

Reports from the Ministry of Food also corroborate this data, showing that the total stock of food grains has consistently increased, reaching over 850 lakh tonnes in 2020. A steep increase from 2004 when the total stock fell to 400 lakh tonnes.



Source: Ministry of Food, Consumer Affairs and Public Distribution
Notes: Total Stock includes coarse cereals; Stock for 2020-21 relates to position as on August 01, 2020; Off-take 2020-21 relates to April-June 2020; Procurement for 2020-21 relates to April-June 2020. 1 Tonne - 1000 Kgs.
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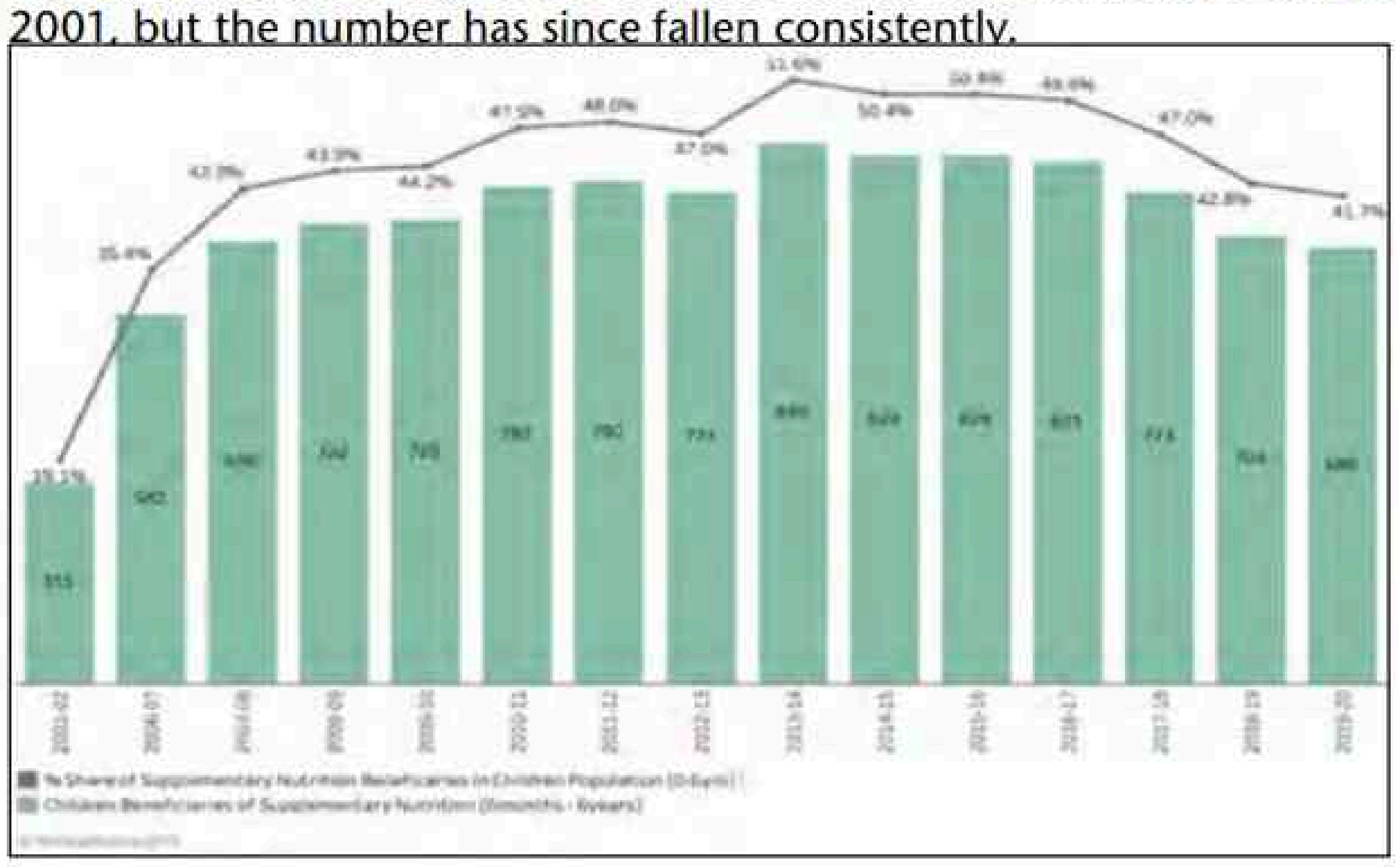
Supplementary Nutrition Programme

The Supplementary Nutrition Programme (SNP), an initiative from the Ministry of Women and Child Development, has also been working to reduce hunger across the country. In this scheme, the government needs to provide 300 days of supplementary food to the beneficiaries. This service is being provided through the Anganwadi Centers. About 50 per cent of children in the age group of 0-6 years have benefited from this programme. As of 2020, there were about 86 crore SNP beneficiaries (69.4 crore children and 16.7 crore pregnant women and lactating mothers). The last significant rise in beneficiaries was in 2001, but the number has since fallen consistently.

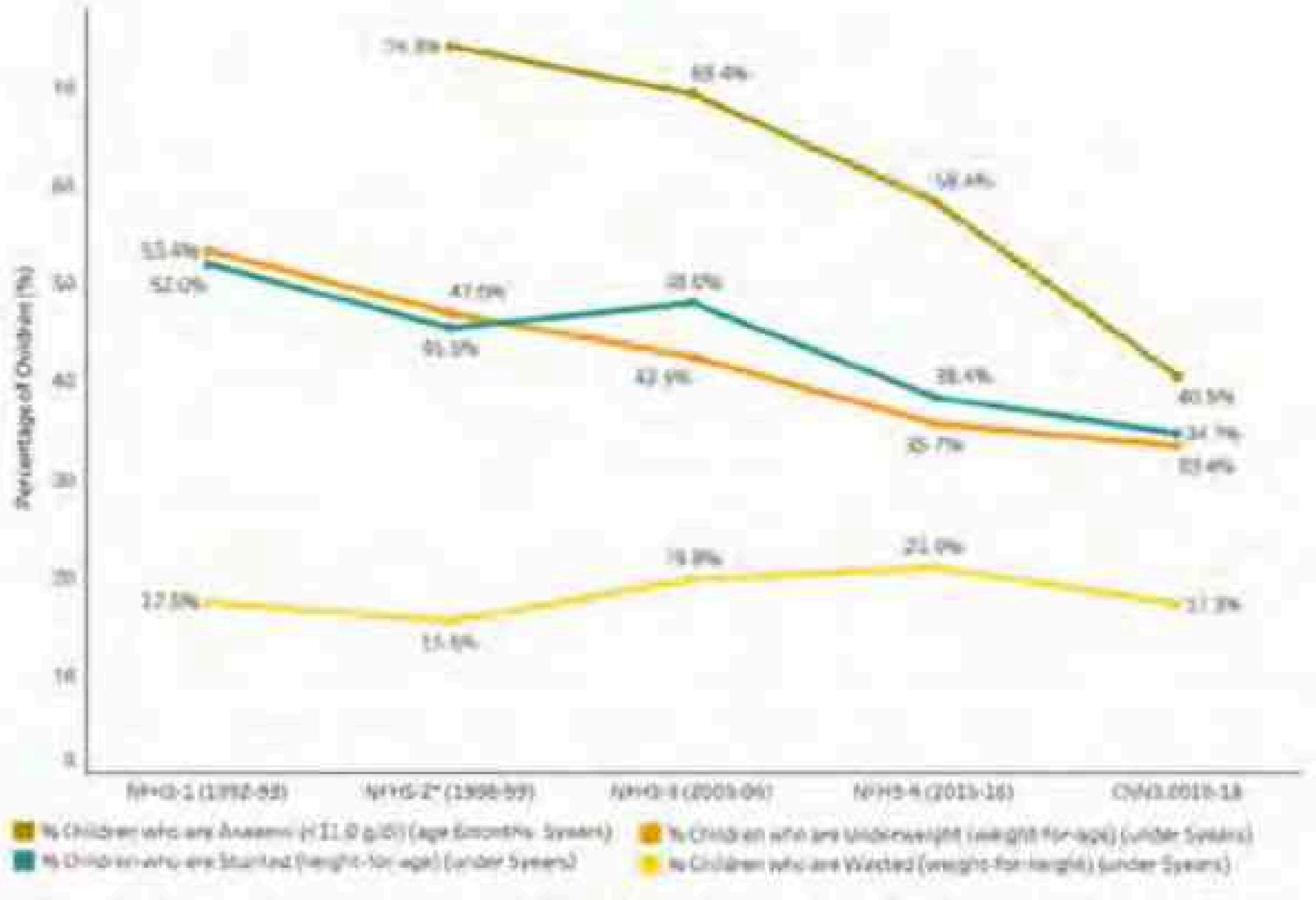


Children and Women's Nutrition

In conjunction with the decrease in SNP beneficiaries, children's overall health in India has seen some improvement. The number of underweight children and those suffering from stunted growth dropped approximately 18.65 per cent from 1992 to 2018. The most significant positive change is seen in the Anemia rates between 1998 and 2018, with rates dropping 33.8 per cent in 20 years. As per CNNS 2016-18, 34.7 per cent of children were stunted. India's target for 2030 is to reduce this to single digits.

The one area that requires improvement is the number of children wasted (low weight-for-height), which remains the same (around 17 per cent) from 1992 to 2018, despite a slight increase in 2015. This trend could be attributed to the lack of protein in diets.

Along with children, women's health has also been closely tracked for Anemia, a long-standing pain point across India. Over the last 20 years, nearly 52 per cent of women aged 15-49 years were anemic. The percentage was much higher among lactating mothers at 58 per cent. The year 2005 saw a steep increase in Anemia levels among women across the country, with lactating mothers showing significant deficiency, which was a troubling sign owing to its effect on children's health. In the decade that followed, India has seen the numbers drop back to rates similar to the late 1990s, a slight improvement on the long journey towards achieving Zero Hunger.



Source: NFHS - National Family Health Survey; CNNS - Comprehensive National Nutrition Survey; * NFHS 2 - children's indicators are for age 0-4 years.

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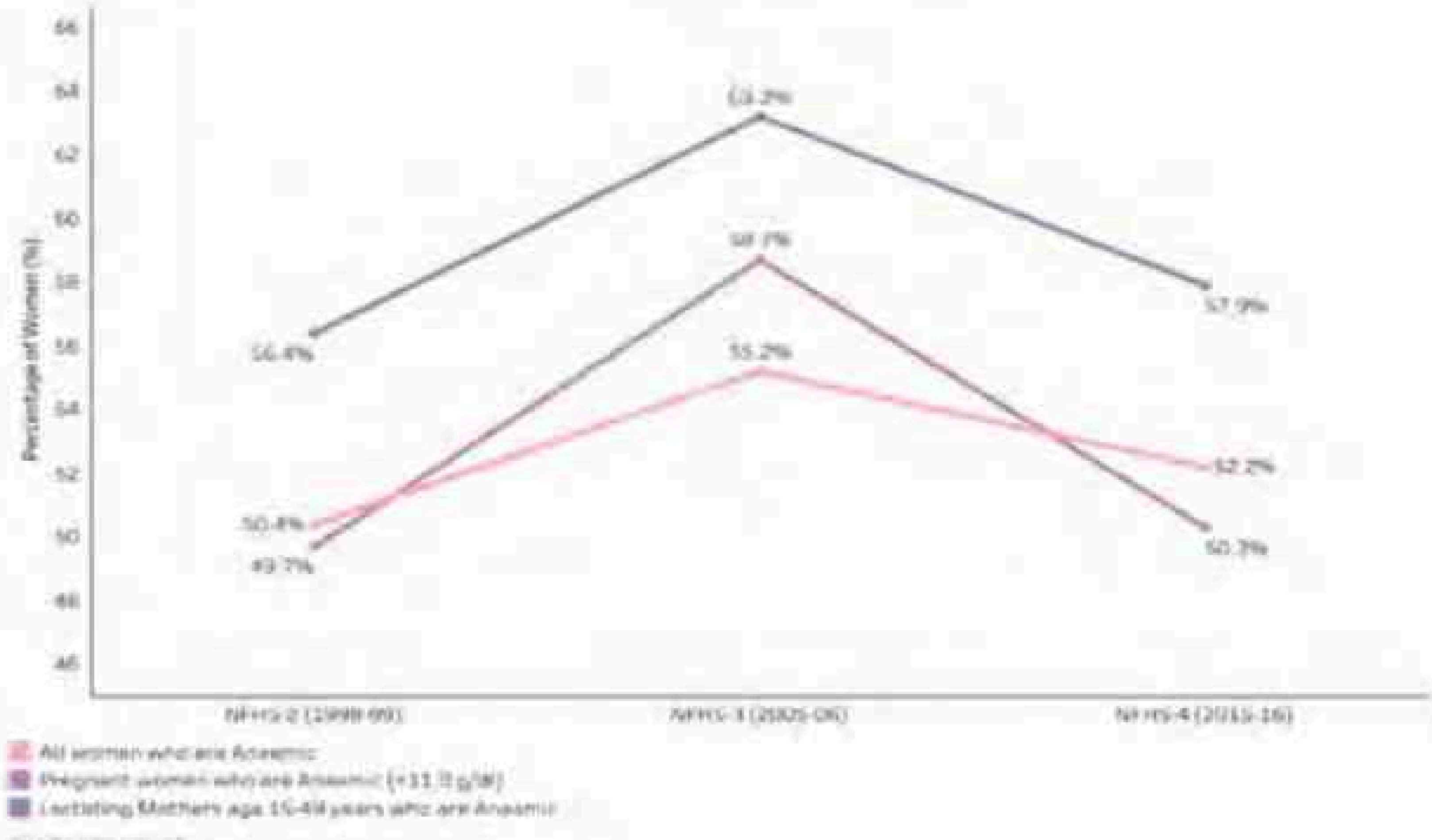
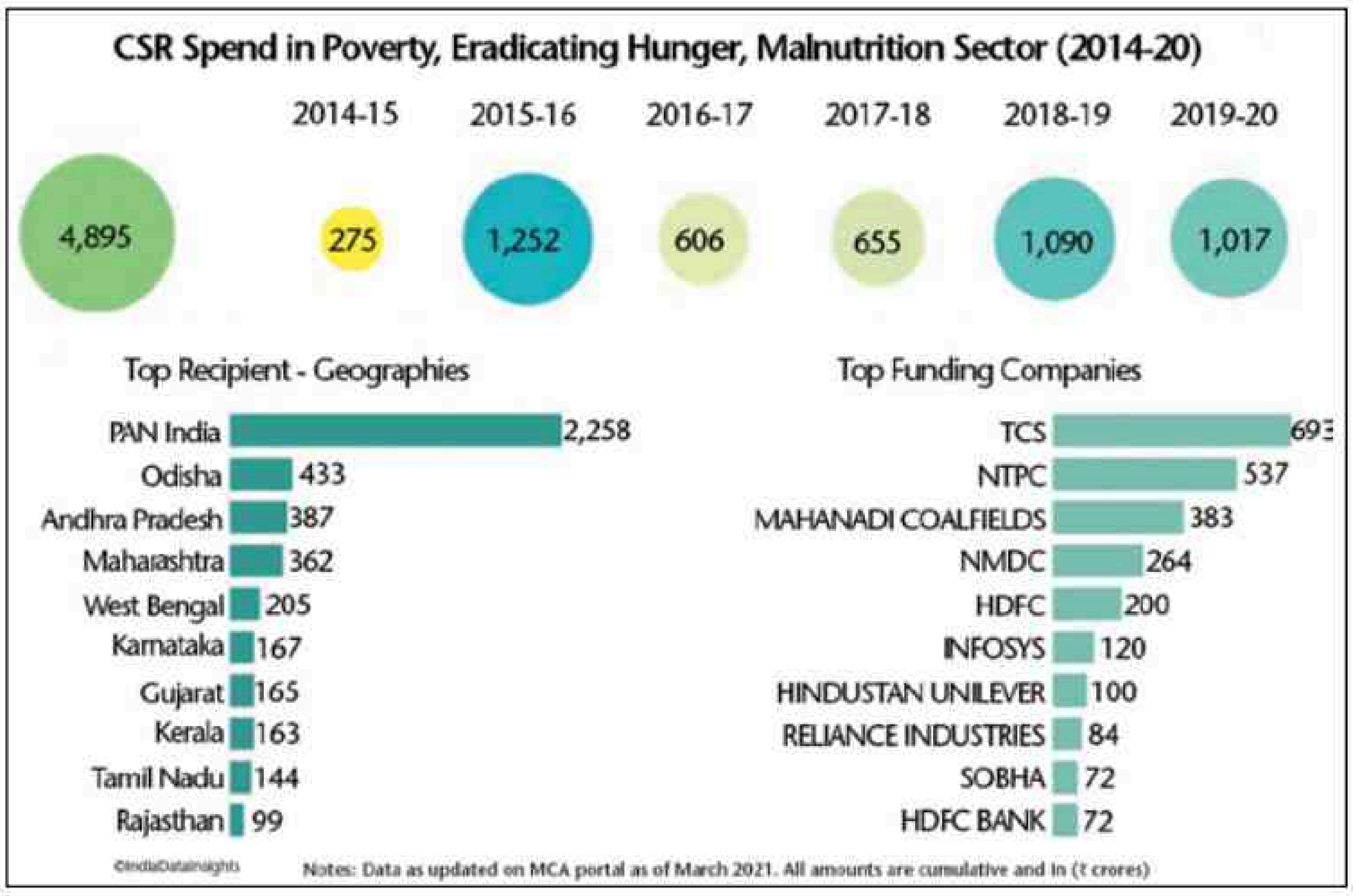


Source: NFHS - National Family Health Survey

CORPORATE CONTRIBUTION

Alongside government initiatives, corporate contributions through CSR also play a vital role in bridging food availability. Over the last six years, the annual CSR budget allocated towards malnutrition and eradicating hunger is approximately ₹4,900 crores. Almost 43 per cent of this was spent during between 2018 and 2020. The top 5 corporate contributors in this area are TCS, NTPC, Mahanadi Coalfields, NMDC and HDFC with a combined investment at ₹2,076.8 crore. At ₹433 crore, Odisha has been the largest beneficiary of CSR investments followed by investment made in Andhra Pradesh and Maharashtra Today, India has a distribution system in place and sufficient grains to support its Zero hunger efforts. However, a missing link means that children in many regions remain undernourished and underweight. The only solution is for corporates and government bodies to work together to identify these gaps and ensure that the right food is made available to help eradicate hunger.


CSR Spend in Poverty, Eradicating Hunger, Malnutrition Sector (2014-20)

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Notes: Data as updated on MCA portal as of March 2021. All amounts are cumulative and in (₹ crores)

Creating a zero hunger world

The agenda of ending world hunger and malnutrition in all its forms by 2030 is enshrined in SDG-2

BISHOW PARAJULI

The horizon for the Sustainable Development Goals 2030 targets, agreed by nations to achieve a better and more sustainable future for all, is just a decade away; but humanity has had a rough start.

We are stepping out of a global pandemic that has disrupted every aspect of our lives in ways and at a scale that we have not experienced in modern times. Add to the equation the ongoing climate crisis that is fuelling hunger and food insecurity. It is a fact that we were not on track for attaining the SDG targets at the global level by 2030 but with these setbacks, the obvious question that even the most optimistic minds face today is: *How will the global community gear up to keep its promises?*

I am an optimist and believe that though the gap between the rich and poor will widen due to the social and economic impacts of the pandemic, research shows that countries on the lower end of human development can turn this around and outdo the pre-Covid development trajectories. This would need bold policy choices and investments in governance, social protection, green economy, and digitalization.

The agenda of ending world hunger and malnutrition in all its forms by 2030, enshrined in SDG-2, is facing formidable challenges. The pandemic has doubled the population under chronic hunger from 130 million to 270 million. Across the world, up to 811 million people do not have enough food and as per the recent World Food Programme (WFP) estimates, 41 million people in 43 countries are at risk of sliding into famine.

India has made great progress over the years on all counts: food production by achieving self-sufficiency, reducing malnutrition, initiating promising models for resilient and sustainable livelihoods, and inclusion through the food safety net. Despite this, the prevalence of malnutrition remains high at 34.7 per cent stunting; 17 per cent wasting, and 33 per cent underweight, including a high prevalence of anaemia and micronutrient deficiency disorders.

Sustainability, value, and trust: A fundamental shift has occurred in how corporations look at their brand value beyond the actual product and business offering and look at trust as a key element of their identity as perceived by consumers and investors.

"Brands have traditionally concentrated on culture, leaving corporate issues such as diversity/inclusion and supply chain to the corporation, and societal issues to the government. Now, 86 per cent of survey respondents say they expect brands to act beyond their product or business. Brands have to act now and be a force for change," says the 2021 Edelman Trust Barometer Report titled, '*Trust, The New Brand Equity*'.

It is important to underline that consumers and investors no longer look at social change, safety nets, and sustainability as domains for the government alone but also for corporations. This emerged even more clearly during the pandemic.

India was the first country to have statutorily mandated CSR for specified companies through the Companies Act 2013. We must recognise the transformation this brought about in the sector itself, ranging from funding to partnerships and brand to sustainability.

Innovation and problem solving: Corporations are constantly pursuing the latest innovation and technology to solve problems to improve processes, experiences, and add efficiency. The ecosystem of corporations is tuned for innovation and problem-solving. What is needed is to bring to this ecosystem, the challenges of hunger and malnutrition. How can this strength of corporations be leveraged to look at hunger and food security from the food systems approach? Allowing us to unravel the points of efficiency, lessen the environmental impact, optimize the supply chain, and improve access – real and perceptual or behavioural.

The primary challenge is the recognition of the issues of hunger and malnutrition that our country is currently facing. Recognition of the issue will enable incorporation of solutions to incorporate plans be it their CSR or philanthropic agenda, public-private partnerships with government and other stakeholders, or devising business strategies factoring in the prevalence of such a critical factor in their consumer ecosystem.

Hunger and malnutrition affect society in multiple ways, from the very inception of life with long-term implications. These not only lead to resultant high health bills but a major loss of productivity and hence compromised purchasing power of the entire family. With more than 55 per cent of women in the reproductive age group of 15 to 49 years being anaemic, there is an intergeneration cycle of malnutrition at play. This cycle needs to be broken for moving towards achieving SDG-2.

Key action areas: First, investing in social behaviour change communication to create

The author is World Food Programme Representative and Country Director to India

nutrition-seeking behaviours will greatly help in leveraging investments being made in designing solutions for addressing hunger and malnutrition.

Second, investing in being a catalytic force enabling scaling up of successful and proven pilot solutions across the country to reach a maximum number of people will allow more people to benefit from these solutions.

Third, technology is playing a significant role in every aspect of today's world. Hunger and malnutrition too are benefitting from applications that range from better logistics to bringing learning into the hands of those responsible for delivery of food safety schemes to tracking the receptivity of measures being put in place to address these issues.

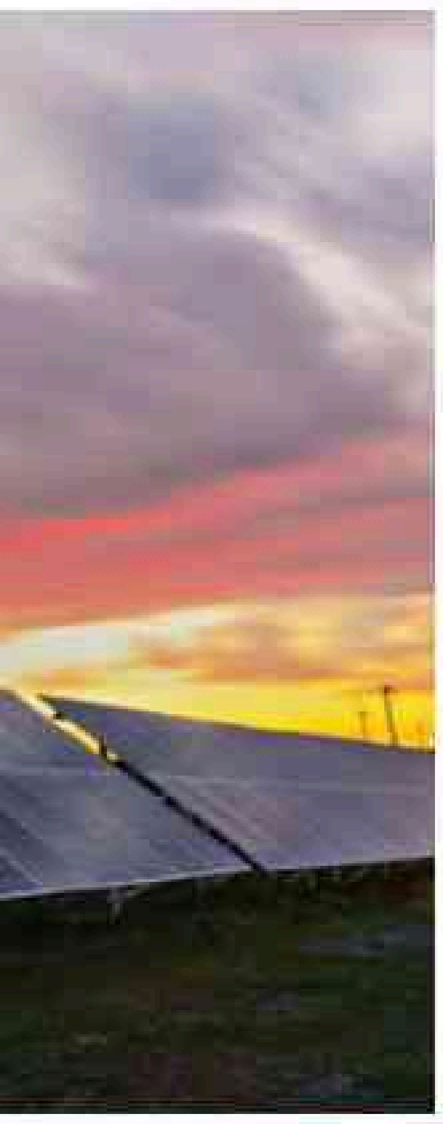
Promising initiatives: The investment India is making in the social safety net and various food-based programmes such as the Targeted Public Distribution System, Mid-Day-Meal, and Integrated Child Development Scheme, are laudable examples globally. The efforts India made in responding to the pandemic with extra food rations were also commendable steps. The recent announcement of Prime Minister Narendra Modi to fortify food under the public distribution system is yet another commendable step.

Strategic and sustained investment of resources – both financial and technical – are critical to show demonstrable results. The good news is that sustained investment in these areas does not denote a long-term timeline, rather short to medium term only.

Examples of partnerships: WFP creates innovative and scalable solutions to address hunger and malnutrition in the country. Partnerships, technical and financial, with corporations or private sector partners play a crucial role in delivering food security to those in need.

Ericsson India Global Services has been a key supporter of projects that use technology to strengthen food distribution by reforming the TPDS value chain resulting in significant financial savings through improved efficiencies of the supply chain resulting in significant savings and better reach. The General Mills Foundation has been supporting WFP's work on addressing malnutrition in Odisha and Uttar Pradesh to improve the nutritional content of foods provided to pregnant women, new mothers, infants, and children under various food safety schemes offered by the state. Sodexo India and Sodexo Stop Hunger Foundation are supporting WFP's work with the government of Odisha's Mission Shakti to improve the livelihoods of nearly half a million women belonging to Self Help Groups in Odisha. ◆

OUR KEY ESG COMMITMENTS



PROJECT HARIYALI
Plant 5 million trees per year

2026

NANHI KALI
Educate 1 million girls per year

2026

CARBON NEUTRAL
Science Based Targets in place

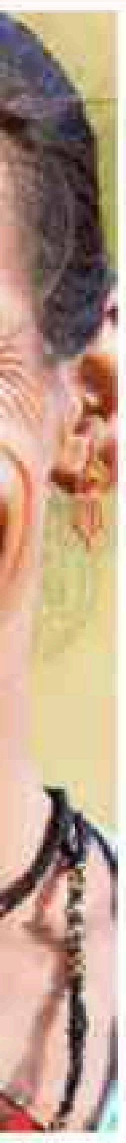
2040

WATER POSITIVE
At Group Level

ONGOING

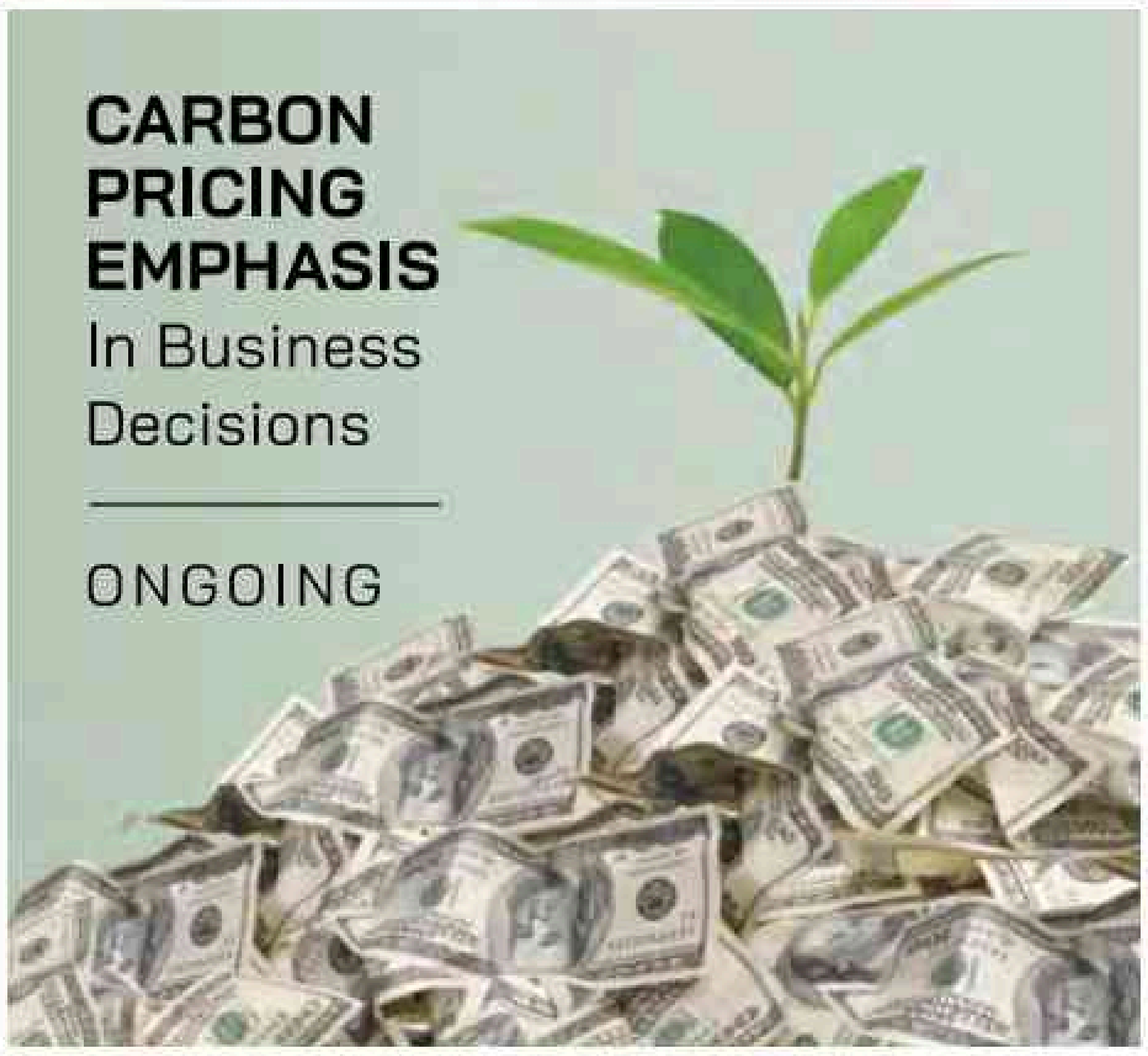
GOLD STANDARD IN GOVERNANCE
Compliance & Disclosures

2022



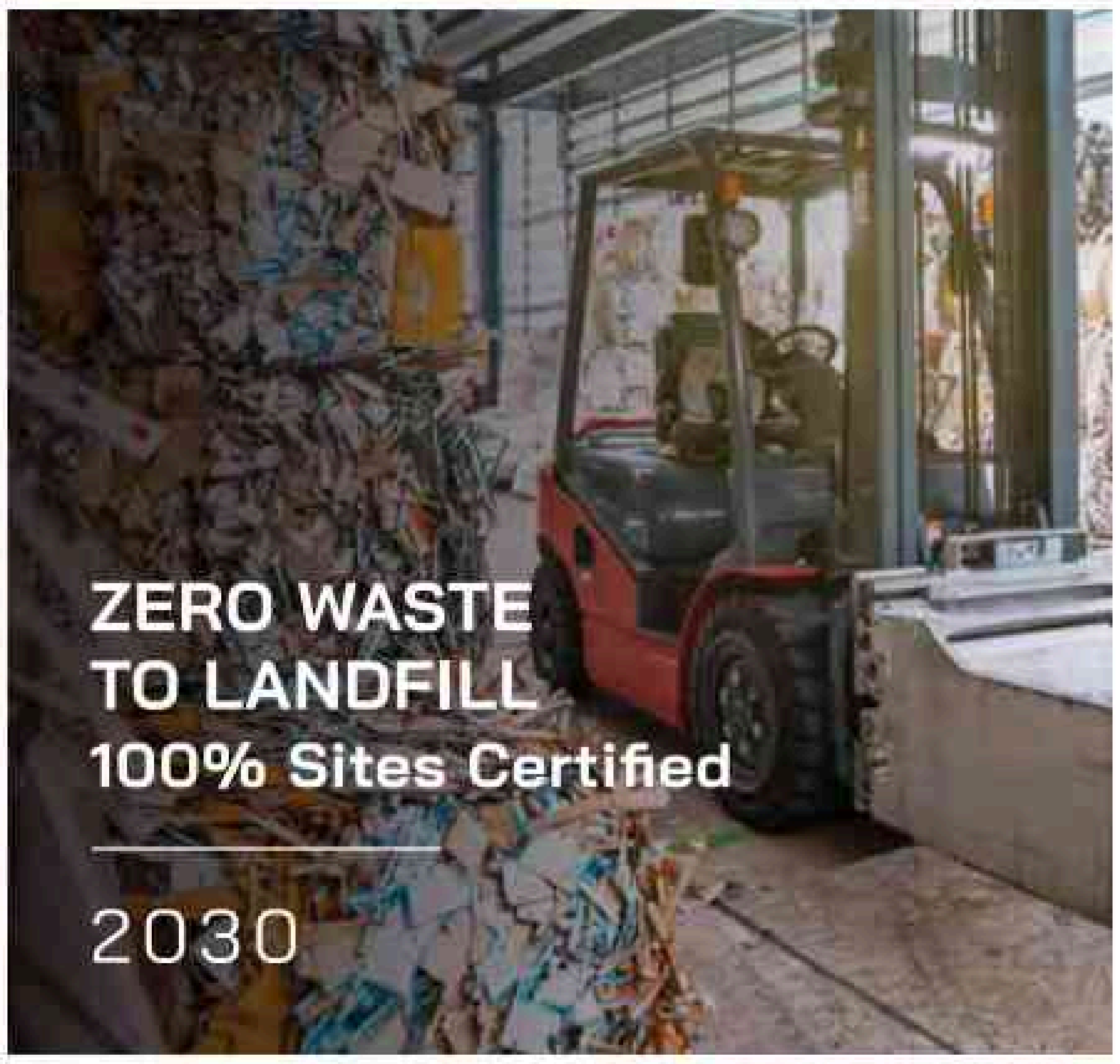
ENERGY PRODUCTIVITY
60% Improvement Targeted

2026



CARBON PRICING EMPHASIS
In Business Decisions

ONGOING



ZERO WASTE TO LANDFILL
100% Sites Certified

2030

Images shown are for representational purposes only

War on hunger

Investment in nutrition improves cognitive development, education, income levels, demographic dividends and gender equality

BRITANNIA

Health of the nation

About 36 per cent of the children under the age of five in India are too short for their age; 19 per cent are too thin for their height too, while 32 per cent are underweight, says the NFHS 5 data. All these are the various forms in which malnutrition manifests itself. To tackle this, the government of India had launched Poshan Abhiyaan in 2017. This was to be achieved by creating synergies within departments, ensuring better monitoring, generating alerts and timely action for the cause.

In line with this initiative, Britannia Nutrition Foundation (BNF), the CSR arm of India's largest bakery foods company, Britannia, in partnership with the district ICDS department, has launched its flagship programme Swasth Bharat at Shivpuri district, Madhya Pradesh. The programme was launched in 2019, with a focussed approach towards identifying and treating children with symptoms of 'severe and moderate acute malnutrition' (SAM/MAM or wasting), conditions ensuing due to lack of basic nutrition necessary for proper functioning, development and growth. In cognisance of the value and impact that local collaborations can build, the programme was implemented in partnership with Shaktishali Mahila Sagathan Samiti (SMSS), a Shivpuri-based development organisation.

The offerings of Swasth Bharat programme have been designed to make it holistic, targeting not just undernourished children but the entire ecosystem in which they grow up, with the foresight to create a lasting impact. The programme is implemented in a two-pronged approach:

At the anganwadi centre (AWC) level, it provides capacity building support to the anganwadi workers, helpers and ASHA workers and thereby enables them to deliver quality nutrition and health services for children, expectant/new mothers and adolescent girls.

समुदाय आधारित संवेदीकरण
एवं जागरूकता कार्यक्रम
सुपोषण

Britannia Suposhan Sakhis conducting a community session

Positive change At the community and household level, it fosters community's participation and ownership through a behaviour change-led intervention, facilitating improvements in mothers' and caregivers' knowledge and practice of health, WASH and nutrition.

The programme is extended through a robust network of women change makers or 'Suposhan Sakhis', to ensure deeper penetration and acceptability of the services and information offered through the programme. These women change makers are identified based on their interest to drive positive change in their communities and are trained on basics of nutrition, growth monitoring of children, screening and management of children with SAM & MAM. The Suposhan Sakhis conduct outreach and promote participation of target groups in the anganwadi activities, conduct awareness sessions, facilitate setting up and maintenance of nutrition gardens or *poshan vatikas* in households of SAM & MAM children, pregnant & lactating women, monitor growth of children, provide support to anganwadi and ASHA workers in regularising consumption of iron & folic acid supplements, institutional deliveries and in the delivery of 'take home ration' (THR) at the doorsteps of beneficiaries.

The initiative aided Shivnandan, a 20-month-old child from a tribal family in Jamonia village, Shivpuri district, who was diagnosed as SAM. His family at that time lacked the awareness and confidence to admit Shivanandan to the Nutrition Rehabilitation Centre (NRC) for a proper treatment. The counselling and support provided by Suposhan Sakhis encouraged Shivnandan's family to admit him to NRC. He has been discharged now and is leading a healthy life.

Every year, thousands of children like Shivnandan go un-diagnosed and suffer the consequences of malnutrition. BNF till date has invested about Rs1 crore towards this cause in Shivpuri and is continuously striving towards expanding its reach and impact.

The programme that started as a small pilot in one village has now spread across 37 villages, 21 slums and 76 AWCs in Shivpuri. There are more than 300 Suposhan Sakhis, who have till date touched the lives of over 4,000 children, 822 of them being diagnosed as SAM. But what is most satisfying and motivating is to see the increasing interest, engagement and knowledge of the entire community towards nutrition and health, for only that will pave the way towards sustainable development. ◆

DCM SHRIAM

More crop per drop

Given the presence of its multi-product manufacturing facility at Kota for over half a century, DCM Shriram has had a long standing association with Rajasthan. This project was triggered by a desire to address the water scarcity and weak socio-economic conditions of the adopted villages in 2017, in keeping with its belief that 'every drop counts'. The programme was conceptualised to ensure availability of sufficient water for irrigation, drinking and livestock, reducing the depletion of ground water and for raising the socio-economic status of the villagers. The projects were undertaken to support the Mukhya mantri jal swawlamban abhiyan (MJSA) of the government of Rajasthan.

The second programme, layered on the first, included an agri-skilling project 'Jeetega kisaan', which strives to achieve the targets of SGD-2 – Zero Hunger. It aims to help farming communities increase their productivity and income. With an increase in irrigated area, cultivable area and adoption of advanced agricultural techniques, this led to increase in productivity and profitability of the farmers. Farmers were also helped in creating market linkages for their crops and giving them access to last mile delivery.

In 2017, the programme was designed as a partnership model, wherein organisations were roped in to collaborate with the CSR and the business team of the company, to bring in their respective core competencies. The major focus of the programme is to work towards propagating good agriculture practices and demand and supply side water management measures. Water is at the core of sustainable development and is critical for socio-economic development, healthy ecosystems and for human survival itself.

Working towards propagating good agriculture practices

Holistic socio-economic growth

Over the last three years, the increased water storage capacity of 640,000 cu m and improved farming practices have benefitted 12,650 people living in 23 villages. Improved agronomic practices, better quality, appropriate quantity of agri inputs, water management and better linkage to markets have together delivered holistic socio-economic growth. The water availability improved along with rise in the water table, recharging of bore-wells, hand-pumps, etc, enabling farmers to cultivate two crops in a year, as against single crop cultivation before intervention. The company recharged more than 100 wells across 23 villages through construction of anicuts, MST and pond renovation. Adoption of vegetable cultivation was a key aim of the project and the land under vegetables increased after training. The adoption rate of vegetable cultivation was 68 per cent.

The replication of agri-skilling programme – Jeetega kisaan – was undertaken by expanding the coverage through increasing the number of villages. This programme, layered on the first (water conservation), included helping farming communities get 'per drop more crop' from the conserved water. The reach was expanded from five villages to 18 more by 2019, making the intervention cover 23 villages in total. This model of water conservation followed by the company recharged more than 100 wells across 23 villages through the construction of anicuts, MST and pond renovation/redevelopment. The replication of the project helped more beneficiaries in upgrading from old technique of farming to new technique and were able to cultivate two crops in a year, as against a single crop before the intervention.

The implementation of unique, scalable and sustainable CSR projects calls for a robust alliance between corporates and NGOs. The company believes that each entity has a critical role to play. While the corporate sector brings managerial expertise, efficiency and organisational capabilities, the development sector augments them with local reach, passion and know-how. To successfully implement water conservation and agri-skilling programme, the company has undertaken partnerships with the government, ISAP, NM Sadhguru and NABCONs.

These water conservation and agri-skilling projects have been scaled to other geographies too. Recently, DCM Shriram has also launched Jeetega kisaan – a sustainable paddy programme – in partnership with IFC and ISAP as its implementation partners in 46 villages of Sonbhadra and Chopan districts in UP.

The objective of the project was to organise beneficiaries into farmers' productivity groups by providing them training on agricultural productivity enhancement for enhanced income from agriculture and allied activities. Also the project by providing information on high-value crops, including vegetables, fruits and other medicinal crops helps increase the annual income of the farmers. ◆

ANAHA TRUST

Worth its SALT

North-East India is a mountainous region, rich in bio-diversity and home to indigenous hill communities, with the people here living in harmony with the ecosystem. This relationship has come under severe strain today, due to climate change – with an increase in summer temperatures from 20° C to 36° C and a decrease in the number of wetlands. This is now rendering their traditional livelihood practice of 'shifting cultivation' or 'slash and burn agriculture' unsustainable.

While, in the past, the land was able to regenerate quickly, now it is slipping into degradation, with the result that food production is declining, leading to insufficiency and hunger for the hill communities for several months each year. Alternatives such as monoculture plantations of rubber, betel nut and horticulture are spreading, which can irreversibly damage the environment and exacerbate hunger in the long term. Anaha Public Charitable Trust aims to support development of alternative models of agriculture which are environmentally sustainable and provide the hill communities with sufficient produce for food and market.

Anaha has identified local partners in Manipur to develop and scale-up alternative models of sustainable agriculture. They include David Gandhi, an agriculture expert, who has been living in a hill village in Tamenglong district and has been working as a volunteer with the local farmers since 2016 to understand the social and agro-ecological conditions and develop sustainable alternatives to traditional shifting cultivation and, more recently, monoculture plantations. Gandhi works with the Aben Village Development Committee, while also engaging with the government and Manipur-based non-profit organisations. Anaha has been supporting Gandhi in his effort since the past three years. In 2021, it also started partnering nonprofits, such as Sunbird Trust and Hope Foundation, for scaling up the model being developed.

Innovative process The model being implemented is known as Sloping Agriculture Land Technology (SALT). Though the SALT model itself is not new, the adaptation process is innovative, as it has to be tailored to the specific social and agro-ecological conditions of the hill region in Manipur. To ensure that the process is grounded in local wisdom, the 'farmer field school' (FFS) approach and the 'participatory technology development process' (PTD) are used. SALT farmers use an innovative process of 'self-selection' to avail incentives in the form of saplings of fruit trees, improved seeds, simple tools, as well as financial support for livestock rearing. Critical steps in farm establishment have been identified for the farmer to fulfil to be able to avail an incentive, before moving to the next step. An innovative monitoring system is in place, wherein the SALT farmers themselves, through a village development committee, monitor the progress of each farm twice a year – in April, before the onset of monsoon, and in November, post monsoon. They use colour coding to identify farms as good/average/poorly performing and suggest ways to improve.

Anaha has been keen to partner with organisations working at the grassroots. It has made special efforts to seek out and support persons and organisations working in these remote and needy areas.

Another challenge has been to tailor support to the requirements of the local communities, whose lives and livelihoods are based on the seasonal calendar, traditions and culture which has evolved over generations. The remoteness of the area, lack of infrastructure and prevailing security/Covid situation there have made it difficult for Anaha to be physically present in the project areas. This has required flexibility and innovativeness of the support mechanism on the part of both the trust and the local stakeholders.

The initiative to develop and scale-up SALT as a model will impact the livelihoods of the hill communities and the fragile ecosystem of the hill region at large. The estimated income from the SALT model is sufficient to meet the livelihood needs of the households, including food, education of children and health care. Further, the SALT adaptation model incorporates agri-business through cultivation of cash-crops like tree-bean, betel nut and oranges, which will attract local youth, who have started migrating to distant cities for temporary employment.

An important impact of farmers shifting over to SALT over the course of time will be reduction in area under 'shifting cultivation' and regeneration of natural forests on these lands. Currently, the area being deforested and set afire for *jhum* in the project area is about 10,000 hectares across a 10-year cycle. By 2025, the project anticipates that at least 200 households would have shifted from *jhum* to SALT/alternative models, thereby reducing the area being deforested by 600 hectares each year and 6,000 hectares over a 10-year *jhum* cycle.

With the support of Anaha, over 150 farmers in Aben and neighbouring villages are now implementing SALT and it plans to cover about 500 farmers over 500 hectares of Tamenglong by 2025. The trust is also working with Gandhi and nonprofits in Manipur to demonstrate SALT in other districts of the state. ◆

POWERGRID

An extra mile to transmit smiles

Powergrid owns and operates the inter-state transmission network of the country, where the transmission system availability is maintained at over 99 per cent. The belief in innovating newer ways for a better society has made the company invest in its mission of creating enabling infrastructure with a human connect and undertake massive educational, health, sports, cultural and infrastructure development programmes. Its project is meant to fund support for nutritional supplements and learning aid kits to children of anganwadi centres in Adilabad district, Telangana.

Powergrid's initiative 'hot cooked millet meals to children' transforms children's lives

For India to be able to meet its Sustainable Development Goals (SDGs), catering to the health and nutritional needs of our demographic dividend is of utmost importance. A high level of malnourishment has been prevailing in Adilabad, particularly among underprivileged and economically weaker sections of society. Malnutrition affects children in several ways, causing stunting, childhood illness and retarded growth.

According to the national family health survey reports, in the case of Adilabad rural population, it has been observed that 39 per cent of the children under five years are stunted (height-for-age). Nearly 24.7 per cent of the children under five years are wasted (weight-for-height); and 37.7 per cent of the children under five years are underweight (weight-for-age).

According to various studies, 80 per cent of the brain growth happens before the age of five and malnutrition is probably the major cause of stunted growth of children in India. Research also reveals that investment in nutrition improves cognitive development, education, income levels, demographic dividends and gender equality.

Moreover, drastic reduction in cultivation of millets, due to the shift towards intensive toxic inputs-based cash crops, has resulted in agricultural distress and lack of sustainability. Further, due to non-availability and consumption of millets, tribal culinary habits based on millets are declining rapidly.

In order to address these issues, '*Chinnarulaku Chirudhanyalu* – hot-cooked millet meals to children' – an initiative funded by Powergrid has been implemented by the district administration of Adilabad, which has the potential to transform lives of children and the society at large.

Maximum impact Millet was chosen because, while it can provide numerous important micro-nutrients required for children's healthy growth and development, it can also be easily cultivated and processed locally.

Powergrid has adopted a multi-stakeholder approach for maximum impact. It includes the district administration of Adilabad, as also the women & child welfare department of Telangana, encompassing the concerned gram panchayats and *anganwadi* centres.

The project involves providing hot cooked highly nutritious millet meals to children of the age of 3-6 years at the *anganwadi* centres. These meals are prepared by *anganwadi* teachers from millets and other ingredients procured directly from farmers' co-operative society.

Mahua laddus are also being provided thrice a week as additional nutritional supplement to the children of *anganwadis*. According to the National Institute of Nutrition, these mahua laddus are nutritious and effectively contributes to the dietary requirement of children. These laddus are prepared from mahua procured from adivasi women's co-operative societies.

A basic minimum educational kit, which includes pre-school uniform and learning aid tools, is also being provided to children at *anganwadi* centres. This motivates the children to learn and prepare them for primary education.

About 3,200 children in 160 *anganwadi* centres have benefitted from the project. Nearly 80 per cent of the beneficiaries are from the tribal community, while the rest are from the economically weaker sections of the society.

Initially, the initiative was taken-up in 50 *anganwadi* centres in Adilabad by the district administration. In view of the promising response from the targeted community, the beneficiaries and *anganwadi* centres, Powergrid has decided to scale up the initiative by funding additional 160 *anganwadi* centres in the Boath, Gudihathanoor, Ichoda, Jainath and Neredigonda mandals (talukas) of Adilabad.

The project aims to address multiple SDGs simultaneously. The initiative aims to provide nutritional supplements to children, thereby conforming to Target 2.2, the internationally agreed-on deadline for reducing stunting and wasting in children below five years by 2025. It also addresses the nutritional needs of adolescent girls, pregnant and lactating women and older persons. Similarly, providing preschool educational kits conforms to Target 4.2, whereby, by 2030, all girls and boys will have access to quality early childhood development, care and pre-primary education, so that they are ready for primary education. ◆

JINDAL STEEL & POWER

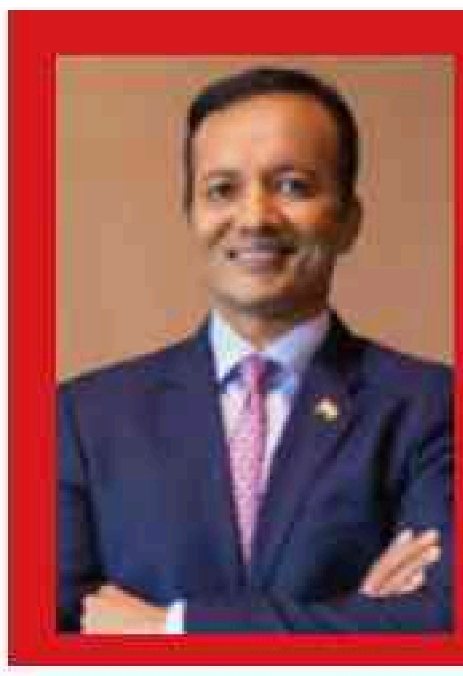
The Corporate SDG Champion

Sustainable Development Goals (SDGs), adopted by United Nations in 2015, is the universal call to action to end poverty, protect the planet, and ensure peace and prosperity in the world by 2030. The SDGs recognise that action for ending poverty and deprivations should be taken together with strategies to improve healthcare and education, reduce inequality and drive economic development while tackling climate change and preserving oceans and forests. The SDGs calls for mobilising globally efforts for achieving social, economic and environmental sustainability in the world. The Indian Government, as a signatory to the 2030 Agenda for Sustainable Development, has been making various efforts to achieve these global goals.

In line with the ethos of sustainable development and community empowerment inculcated by its founder Shri OP Jindal, Jindal Steel & Power (JSP) is making various efforts to contribute to India's effort to achieve SDGs. Under the leadership of its Chairman Mr Naveen Jindal, the leading steelmaker has been taking up multi-faced social initiatives to improve the quality of life of the community, especially in and around its business locations. All the social interventions of JSP are spearheaded by its social arm JSPL Foundation under the leadership of Ms Shallu Jindal and are aligned to the SDGs to build a cohesive model of sustainable development of the society. JSP is one of the few corporate organisations in India that address 16, out of 17 SDGs.

JSPL Foundation is focused upon improving the human development index by promoting community healthcare, quality education, developing critical civic infrastructure in rural areas, facilitating livelihood generation opportunities, promoting sports, art & culture and several other programmes on a sustainable basis .

The **SDG 1** calls for ending poverty in all forms. Jindal Steel & Power, under its corporate social responsibility, have made multidimensional efforts to reduce poverty by promoting income generation activities in the rural areas. JSPL Foundation facilitates inclusive economic growth by assisting small farmers and vulnerable communities to have a sustainable earning and improved quality of life. Promotion of community diary to generate additional income and formation and strengthening the farmers' groups for better access to finance information on backward and forward linkages are two major initiatives by the Foundation in this direction. The Foundation promotes LEISA (Low External Input on sustainable agriculture) practices from switching over from HEIIA (High External Input for Intensive Agriculture) in both Seasonal Agriculture and Cash crops including Horticulture and Tree based Agriculture. For the underprivileged and the vulnerable who are not in a position to take up income generation activities for physical / mental debilities, JSPL Foundation provides social security support.



'Passion for People' is one of the core values of Jindal Steel & Power. To enrich people's lives, Jindal Steel & Power has been partnering with the people for their sustainable prosperity through responsible industrialisation. Our sincere efforts have consistently been contributing to developing economies, industries and societies in the communities and countries where we conduct business by integrating our business priorities with community aspirations as envisioned by our Founder Chairman, Shri O P Jindal.

– NAVEEN JINDAL, Chairman, Jindal Steel & Power

Poverty and hunger are closely related and the SDG-2 calls for zero hunger, food security and improved nutrition. Under the project Sneh, JSPL Foundation provides nutrition support to underprivileged and vulnerable children and senior citizens in Odisha's Angul and Barbil and Chhattisgarh's Raigarh and Tamnar benefiting 1500 families, 5000 children and 300 senior citizens. This initiative has been very helpful in combating malnutrition and improving educational performance of the children as well. **During COVID-19 pandemic the Company provided more than one million meals to the poor and vulnerable**

across India under its Mission Zero Hunger programme.

JSP Foundation believes that ensuring healthy lives and promoting well-being is crucial to achieving sustainable development. In line with **SDG-2, which calls for Good Health and Well-Being**, the Foundation has taken up a number of initiatives to create and enhance health services and spread awareness about public health issues. Under the aegis of JSPL Foundation two multi-speciality Hospitals namely OP Jindal Hospital & Research Centre at Raigarh and Tamnar with 100 and 27 beds, respectively are operational providing state-of-art tertiary health care services. These two multi-speciality hospitals provide affordable health services to the community, besides free treatment for underprivileged sections of society. With an objective to make quality healthcare services accessible to rural communities, the Foundation has set up Telemedicine centres across the 7 locations in 3 Eastern States of India. These centres, connected with the above two Hospitals and a few State level Govt Hospitals provide advanced health services from super specialists to around 25000 people every year. Project Vatsalya, implemented by JSPL Foundation, has contributed to substantial improvement in maternal and child health in total 88 villages of Chhattisgarh, Jharkhand and Odisha. The Foundation's innovative programme Kishori Express has been addressing anaemia in adolescent girls and women in rural areas. A customised vehicle known as Kishori Express reaches out to villages and schools and conducts regular haemoglobin check ups and community sensitisation to eliminate anaemia among girls. It also provides nutritional support as per requirement. So far the programme has reached more than 1.8 lakhs, adolescent girls, across 537 villages in Odisha and 15 villages in Jharkhand. Programme Kishori Express is also being implemented in 87 villages of Haryana under the GOI's Aspiration District Programme launched by the Hon. Prime Minister Shri Narendra Modi. As a part of its preventive healthcare programme, JSPL Foundation organised regular health camps and community sensitisation programmes in remote and tribal villages. In order to mitigate the social stigma and to identify and assist HIV positive members of the local community, JSPL Foundation often undertakes HIV screening and awareness camps. To date, more than 3.6 lakhs of people have been screened voluntarily through the Integrated Counselling and Testing Centres (ICTC), operational at business locations of JSP based on NACO guidelines.

The **SDG-4** focuses on quality education and JSPL Foundation has taken a series of initiatives to improve the quality of higher education, mass education, school education, skill education and special education for Persons with special needs. In order to bridge this gap and strengthen classroom processes, JSPL Foundation has supported the engagement of 178 community teachers in 113 vernacular schools across Odisha, Chhattisgarh and Jharkhand. O.P. Jindal Global (Institution of Eminence Deemed to Be University) founded by Jindal Steel & Power has been awarded the prestigious 'Institution of Eminence' status by the Government of India. Ranked among the top 800 universities in the world in the QS World University Rankings 2020, the University brings international learning experiences to the Indian higher education system and ranks as No.1 Private University in India. At Punjipathra, Raigarh, the OP Jindal University has been established as the only University in India dedicated to Steel technology and Management . The OP Jindal Schools located in Angul, Barbil, Raigarh, Taraimal, Tamnar, Kunjemura, Rabo and Patratu have been facilitating quality education among 12500 students from more than 100 villages/ small towns.

ASHA –The Hope Centres, are vocational and rehabilitation centres for children with special needs and seeks to empower people with disabilities. The Centres located near JSP's operation in three states has provided support for cognitive, social and psychological development, opportunities for skill development, and special education to about 5000 specially-abled children. In order to enable the meritorious needy and vulnerable students for higher education, JSPL Foundation has provided more than 10000 students across India.

JSPL Foundation, the Social Arm of Jindal Steel & Power, has evolved and grown as a responsible Change Maker in India, shaping up the lives of nearly 2 million people across the country. The Foundation is consistently working to improve the Quality of Life of people across the country, mainly the underprivileged and socially vulnerable sections of society. While executing the sustainable CSR Programmes of JSP, the Foundation has stood firmly beside the needy during the Calamities and Pandemic and has ensured to orient its contribution as a dependable enabler of People's action for a better Tomorrow.

– SHALLU JINDAL, Chairperson, JSPL Foundation

In line with the **SGD-5** that calls for Gender Equality, JSPL Foundation has been taking various initiatives for the socio-economic empowerment of women. The Foundation's initiatives are focused on minimising the economic vulnerability of women in rural areas and augmenting their access to cash income on a sustainable basis. It supports the formation and capacity building of Women SHGs and facilitates backward and forward linkages for their income generation through training, seed money and marketing support. The Foundation has helped more than 12000 women SHG members to enhance their income.

SDG-6 calls for Ensure availability and sustainable management of water and sanitation for all. JSPL Foundation is facilitating the community's access to clean and safe drinking water through the Installation of Water ATMs and overhead tanks, running Mobile Water Vans and installation of tube wells in villages. The Foundation has also set up two excess Iron Removal Plants to make potable water available for the rural community. Foundation's Drinking Water initiatives have benefitted more than 18 lakh people across three states. In line with the Government of India's Swacch Bharat Programme, the Foundation has also taken up multi-faceted measures to make villages Open Defecation Free and improve sanitation.

For Affordable Clean Energy, as per **SDG-8**, JSPL Foundation promotes renewable energy by installing solar lights and solar operated pumps for irrigation. It also promotes smokeless cooking stoves as a part of its effort to provide clean and safe cooking fuels.

Decent Work and Economic Growth is the 9th SDG and Jindal Steel & Power helps the community to have better economic opportunity by developing their skill in various areas. The Foundation has established OP Jindal Community Colleges at three locations and has skilled more than 100000 youths in various vocational trades. In order to refine the traditional skills, the Foundation supports capacity building of traditional artisans and women, which have contributed in better earning for them.

JSPL FOUNDATION

In line with the **SDG-9**, the Centre of Steel Technology and Product Development (CSTPD), established by Jindal Steel & Power at OP Jindal University is conducting research on reducing carbon footprint and thereby promoting green steel making.

The **SDG-10** calls for reducing inequality. JSPL Foundation makes various efforts to eliminate gender inequality by encouraging women education, promoting women in sports like hockey and football, supporting women entrepreneurs for better income, strengthening and capital formation for Self Help Groups and regular gender sensitisation programmes in the rural and tribal areas. The Foundation has been actively working on not only economic empowerment of the Women but also in their health front and in facilitation of enhanced decision making power of the Women in families, Gramsabha and Panchayats

Jindal Steel & Power, as envisioned in **SDG-11**, promotes building eco-friendly building technology for a sustainable future. It has developed its township with Schnell Home technology equipped with the building materials for reducing in-situ temperature and replacing wood and built its plants with zero outside discharge. The Company manages its waste in a responsible manner. The **SDG-12** calls for responsible consumption and production. The Company focuses on reducing its energy and water consumption, recycling water and paper and reusing water paper and industrial slurry with no to plastic use. The JSPL Foundation in collaboration with NABARD has been implementing an Integrated Watershed Project over a catchment of 4000 acres in Angul district resulting in ground water recharge across all slopes and controlling erosion of the top soil and thereby doubling the

farmers' income on a sustainable basis. In line with the **SDG-13**, JSPL Foundation promotes community plantation in the peripheral villages across operational locations of JSP. More than one million saplings have planted under this initiative. It has also set up 250 ponds, which act as carbon sinks. Jindal Steel & Power is the first Corporate in Odisha to implement watershed projects in partnership with NABARD.

As per **SDG-15**, JSPL Foundation is implementing WADI development programme, an agro-horti-silvi-pasture-based project at Tamnar in partnership with NABARD. It has converted 500 Acre of barren land to orchards with intercropping of vegetables , transforming the lives of 500 tribal farmers and their families and enhancing their income by more than 3 times . It also promotes the use of vermin-compost SRI methods of farming and Azolla Cultivation.

In order to maximise the outcome of its social interventions, JSPL Foundation, as envisioned in **SGD-17**, operates in tandem with the Government and other development agencies to bring radical transformation in the lives of the communities and integrate them into the mainstream development process of the country. JSPL Foundation has been working with the local community consistently to build social capital by facilitating social investments in a participatory mode . In addition to the Government departments, the Foundation works with reputed organisations like NABARD, Sight Savers India, NACO, OSACS, Asia Heritage Foundation, Prayas, RAWA Academy and various other non-government organisations. ■

People First - Nation First

COVID-19 has been a challenge for humanity across the globe. The pandemic has had serious health, economic and social impact throughout the country. Jindal Steel & Power, being a responsible corporate in India, made several efforts to join its hand with the Government and the community, especially around its operational areas to defeat the pandemic in India. Pursuing the vision of its Chairman, Naveen Jindal under the leadership of JSPL Foundation's Chairperson Shallu Jindal the Company started on-ground services to mitigate the pandemic induced drudgery of poor and vulnerable right from the day of lockdown in March 2020. During COVID-19 pandemic the Company provided more than one million meals to the poor and vulnerable across India under its Mission Zero Hunger programme. The company supplied more than 5000 tonnes of liquid medical oxygen to various hospitals across 13 States in the country to save hundreds of lives during the Second Wave of the Pandemic.

Goal: Ensure healthy lives and promote well-being for all at all ages

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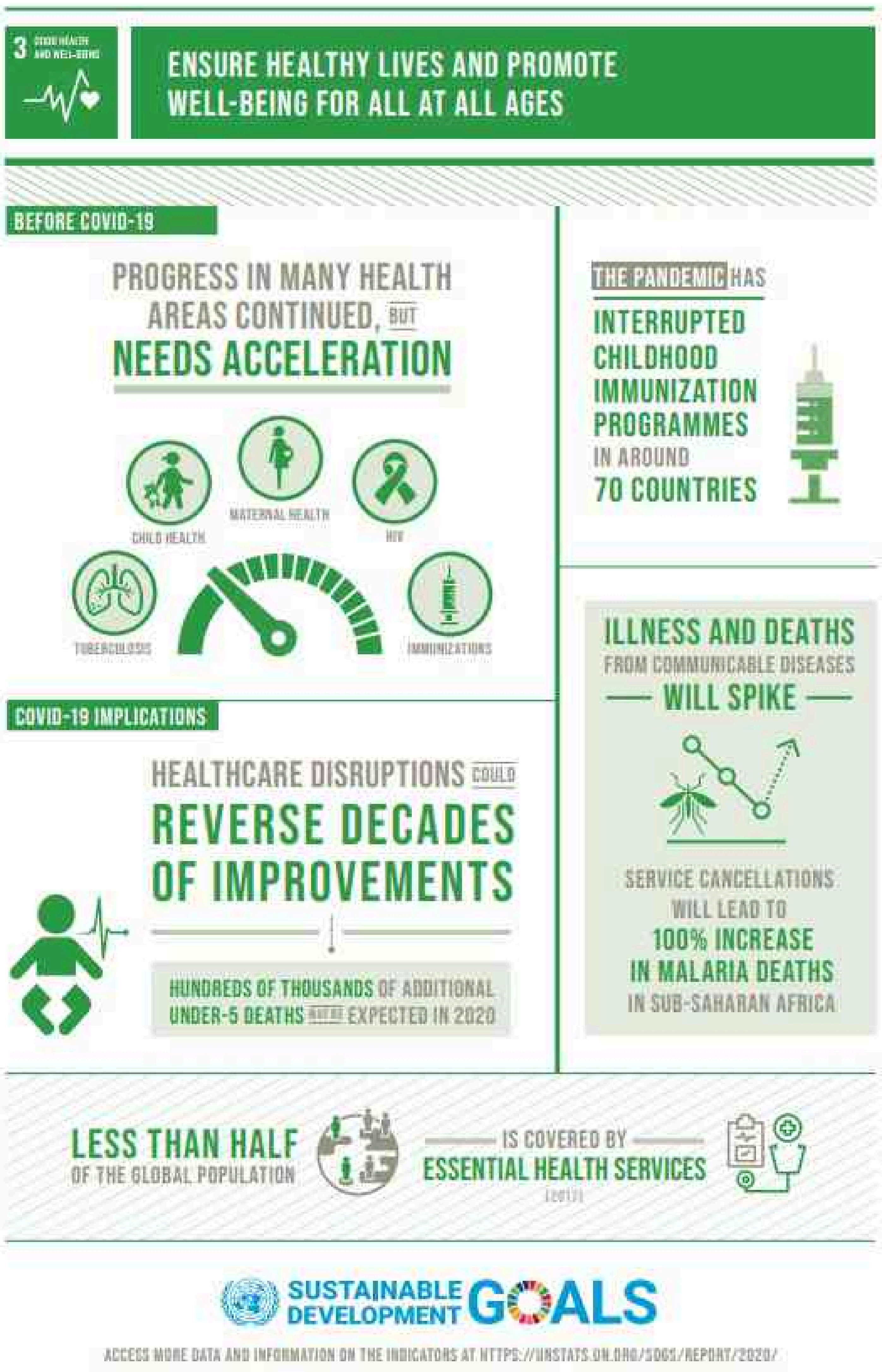


ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

BEFORE COVID-19

PROGRESS IN MANY HEALTH AREAS CONTINUED, BUT NEEDS ACCELERATION

THE PANDEMIC HAS INTERRUPTED CHILDHOOD IMMUNIZATION PROGRAMMES IN AROUND 70 COUNTRIES

COVID-19 IMPLICATIONS

HEALTHCARE DISRUPTIONS COULD REVERSE DECADES OF IMPROVEMENTS

HUNDREDS OF THOUSANDS OF ADDITIONAL UNDER-5 DEATHS WERE EXPECTED IN 2020

ILLNESS AND DEATHS FROM COMMUNICABLE DISEASES — WILL SPIKE —

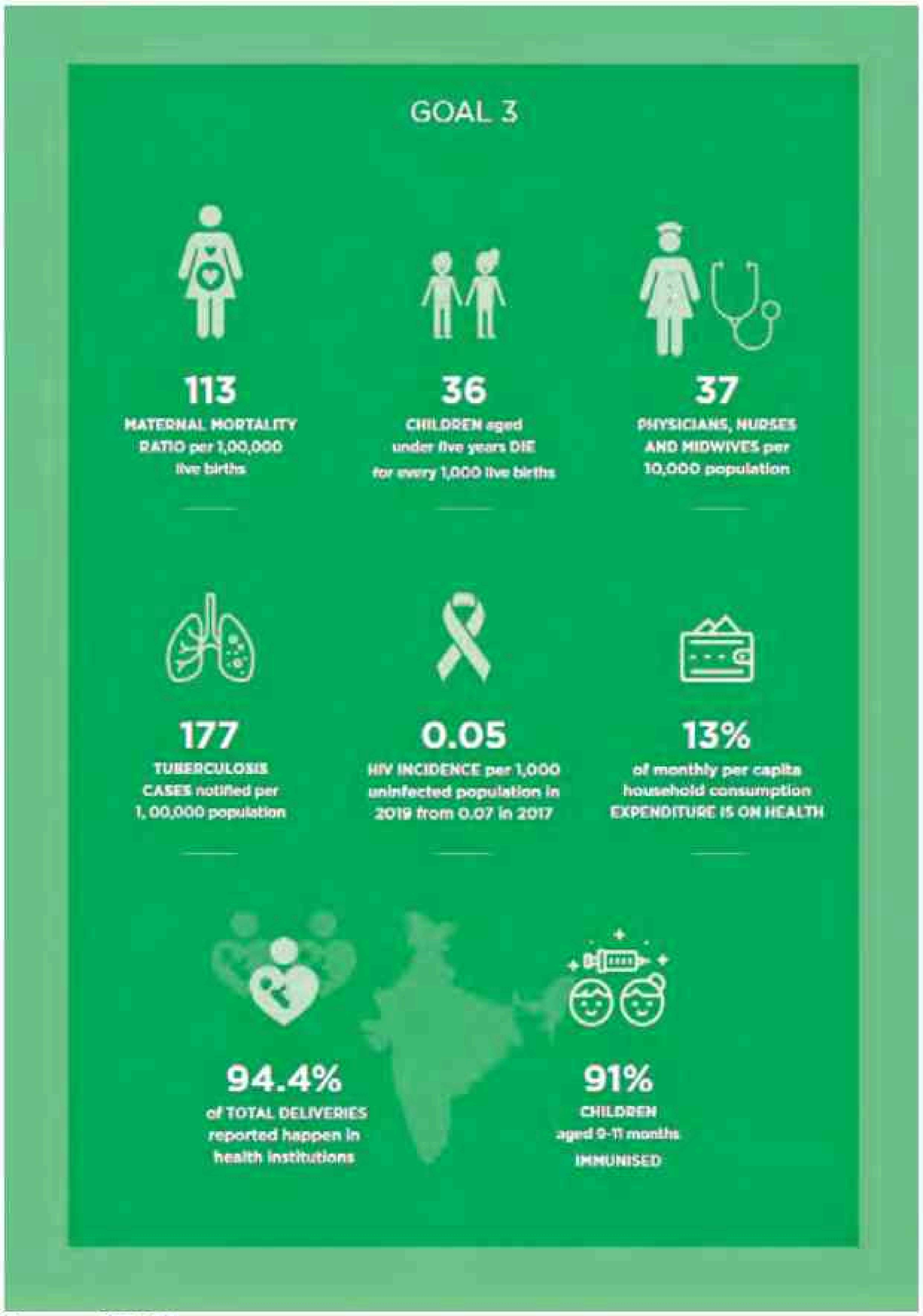
SERVICE CANCELLATIONS WILL LEAD TO 100% INCREASE IN MALARIA DEATHS IN SUB-SAHARAN AFRICA

LESS THAN HALF OF THE GLOBAL POPULATION IS COVERED BY ESSENTIAL HEALTH SERVICES (2017)

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 3

113 MATERNAL MORTALITY RATIO per 1,00,000 live births

36 CHILDREN aged under five years DIE for every 1,000 live births

37 PHYSICIANS, NURSES AND MIDWIVES per 10,000 population

177 TUBERCULOSIS CASES notified per 1, 00,000 population

0.05 HIV INCIDENCE per 1,000 uninfected population in 2019 from 0.07 in 2017

13% of monthly per capita household consumption EXPENDITURE IS ON HEALTH

94.4% of TOTAL DELIVERIES reported happen in health institutions

91% CHILDREN aged 0-11 months IMMUNISED

Source: NITI Aayog

Good health is one of the foundations of a strong society and is an essential factor in a nation's overall progress. The SDG takes into account widening economic and social inequalities, the continuing burden of HIV and other infectious diseases, mental health and emerging challenges such as non-communicable diseases, alongside various other factors including rapid urbanisation, threats to the climate and the environment.

The Good Health SDG also calls for universal health coverage, including financial risk protection, access to quality essential health care services and access to safe, effective, quality, and affordable medicines are integral to this goal. NITI Aayog's SDG India Index & Dashboard for 2020-2021 list the following key targets to be achieved by 2030:

3.1 Reduce the global maternal mortality ratio to less than 70 per 1,00,000 live births

3.2 End preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

3.3 End the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases, and other communicable diseases

3.4 Reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

3.6 Halve the number of global deaths and injuries from road traffic accidents

3.7 Ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality, and affordable essential medicines and vaccines for all

3.9 Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

India ranks 116 out of 165 on the most recent UNDP reports, with a score of 57.97. While significant challenges remain in this sector, the nation has shown moderate improvements.

One of the most notable changes with respect to health improvement across the country is the increased life expectancy and decreased death rate. From 1960, the death rate shows a significant decline from 22.18 per cent to 7.27 per cent (a 67 per cent decline). Similarly, life expectancy has also increased, with the average Indian now living 28 years longer than they did in the 1960s.

The improvement in life expectancy is also visible in infant and maternal mortality rates. Since 2006, the percentage of institutional births has increased across India, accompanied by increased immunization coverage of 76 per cent in 2020. This move towards increased institutional deliveries plays a significant role in the decrease in infant and maternal mortality.

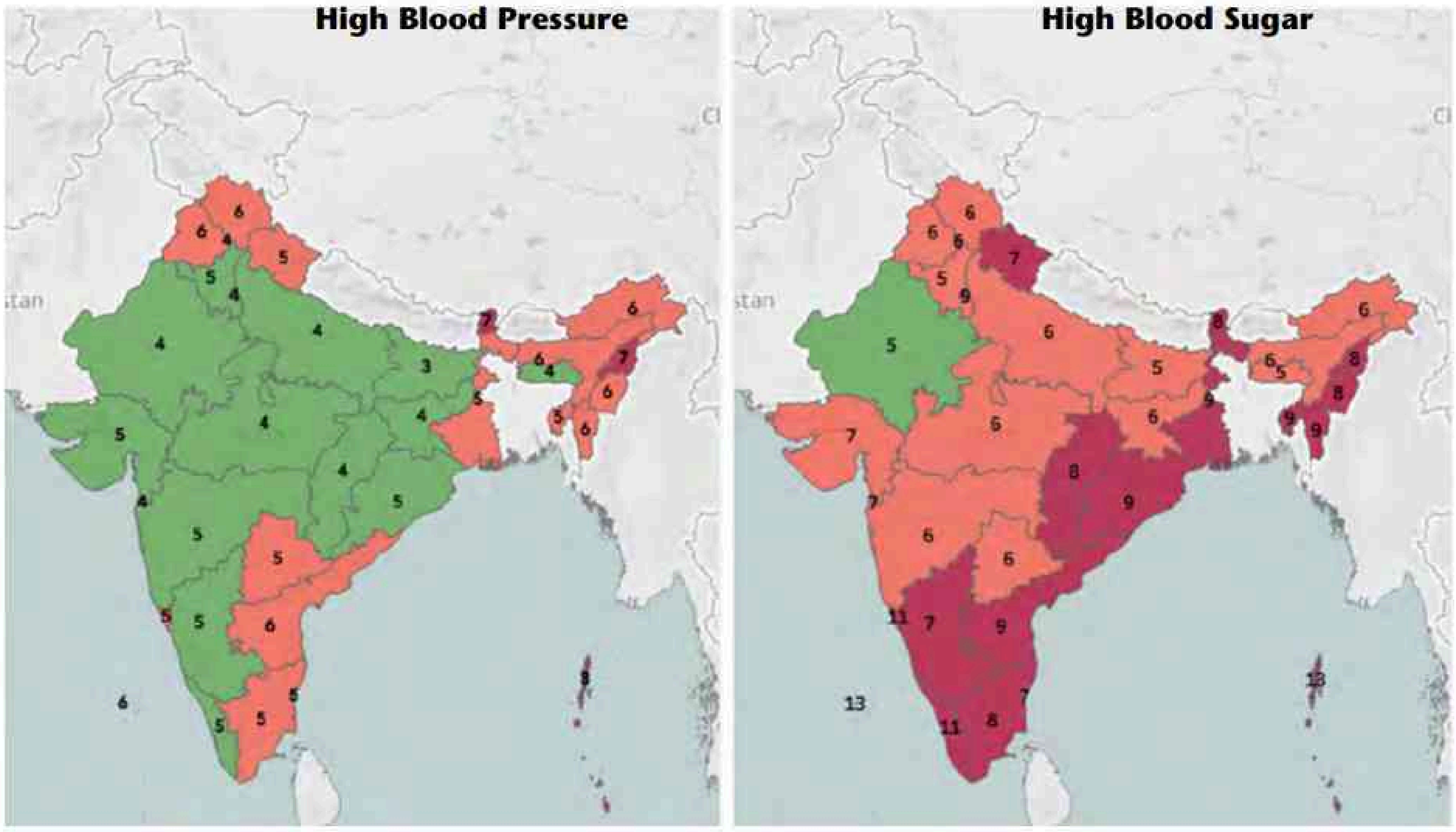
Impact of Communicable and Noncommunicable Diseases

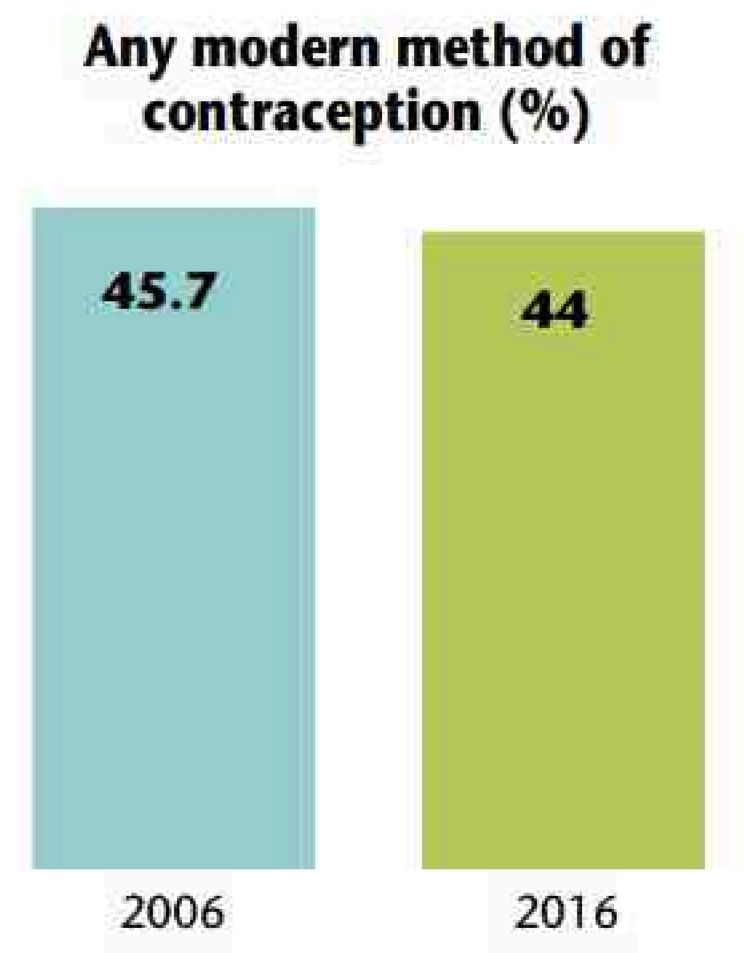
Noncommunicable diseases (NCDs), also known as chronic diseases, are not passed from person to person and are of long duration with generally slow progression. Common NCDs include cardiovascular disease, cancer, chronic respiratory disease, and diabetes. NCDs have been rising across the country, and the two leading contributors are high BP and high blood sugar. These are also the most common contributing factors towards cardiovascular diseases, the most common cause of death globally. Over the last 18 years, the contribution of NCDs total deaths has steadily increased and now account for more than half the deaths in India.

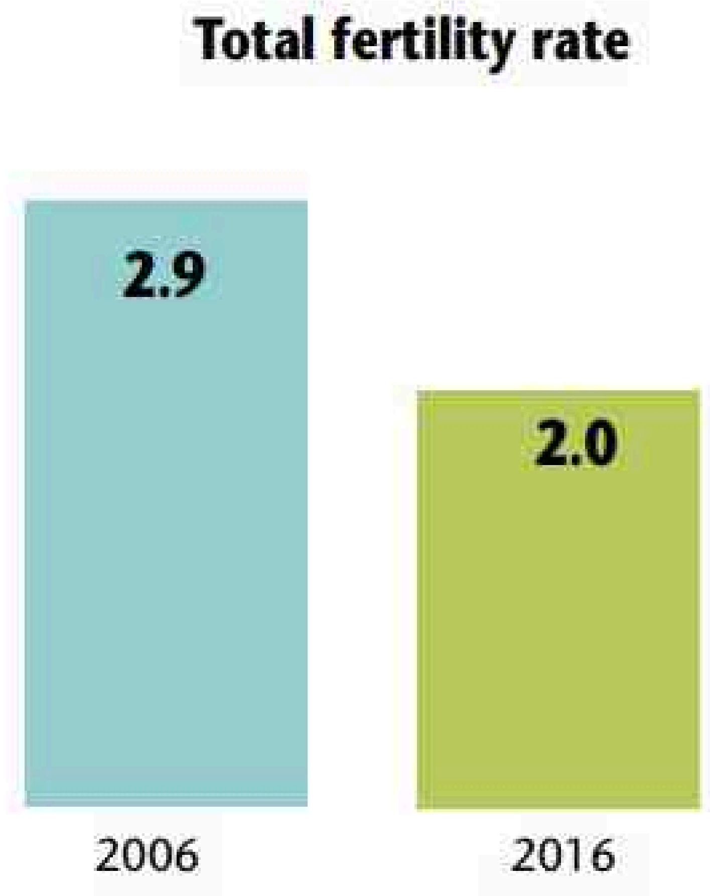
High blood pressure (BP) has been found mainly in the northeast, southeast and northern regions of India, where on average, 6 per cent of the population suffers from high BP. India is home to one-sixth of the world's diabetic population, and this is reflected across the country. Recent data shows that over 7 per cent of the people in 17 states and union territories have high diabetes, with 16 states and union territories showing an average of 6 per cent of the population suffering from high diabetes. Sikkim and Nagaland have high rates for both diseases and are the most in need of medical attention.

The improving health across the nation can also be attributed to the nationwide decrease in

Percentage of population with:




Any modern method of contraception (%)


Total fertility rate

©IndiaDataInsights

deaths occurring from communicable diseases (passed from person to person). Since 2002, this number has fallen from 50 lakh to 40 lakh.

HIV and TB are two communicable diseases that contribute to the greatest number of deaths in India. In the last decade alone, TB cases have fallen from 30.5 lakh to 27.4 lakh. Yet, it remains the largest infectious disease killer in the country. HIV has shown a steep decrease from 1.20 lakh in 2010 to 88,000 in 2017. India aims to eliminate TB by 2025 and HIV by 2030 through various national programmes, the impact of which are already becoming apparent.

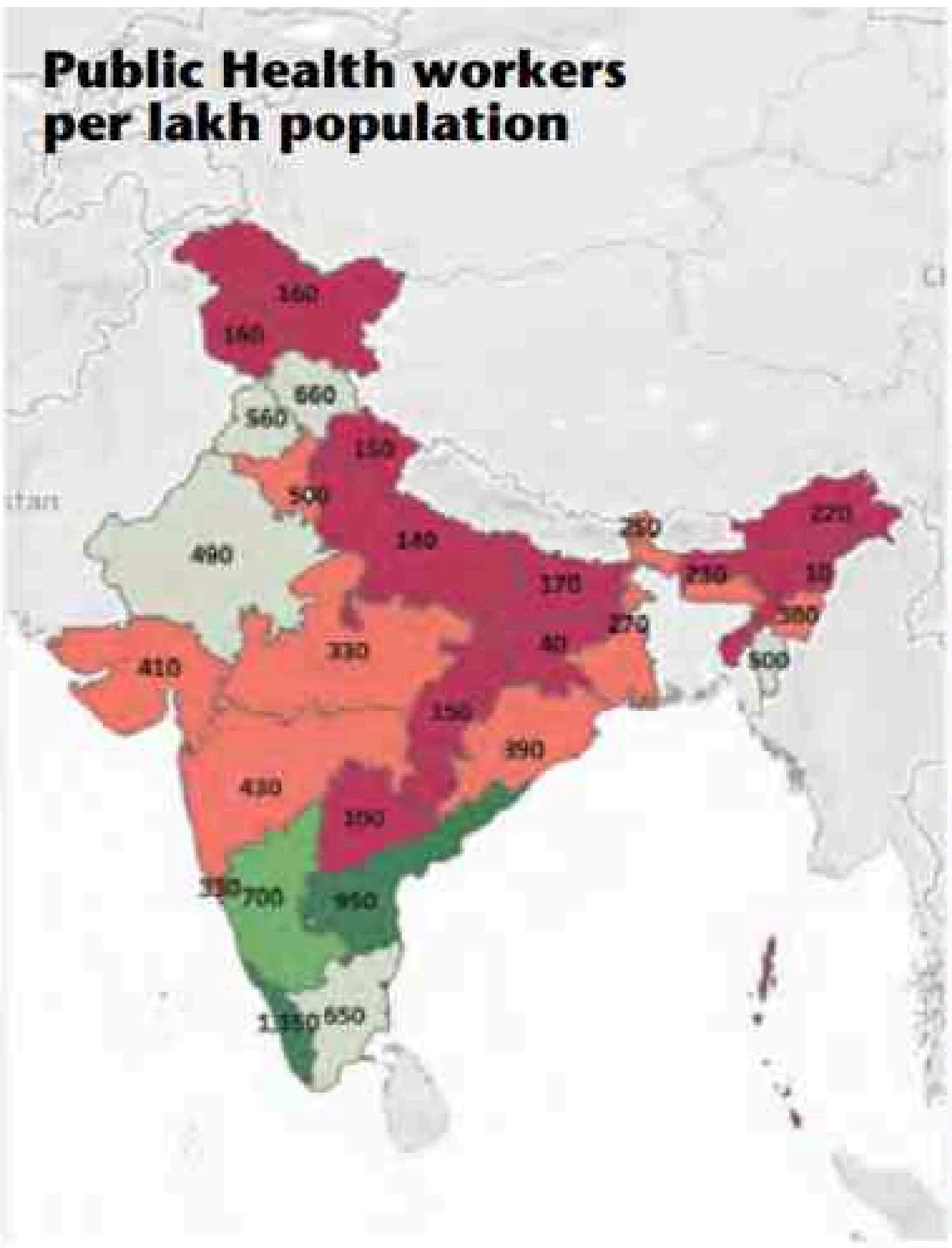
Sexual health also plays a vital role in ensuring improved health across the country. Since 2006, the total fertility rate in the country has moved from 2.9 (average children per woman) to 2.0 in 2016, which meets the UN recommendation of 2 children per woman. This transition has been possible despite a decrease in the usage of modern contraception during this time.

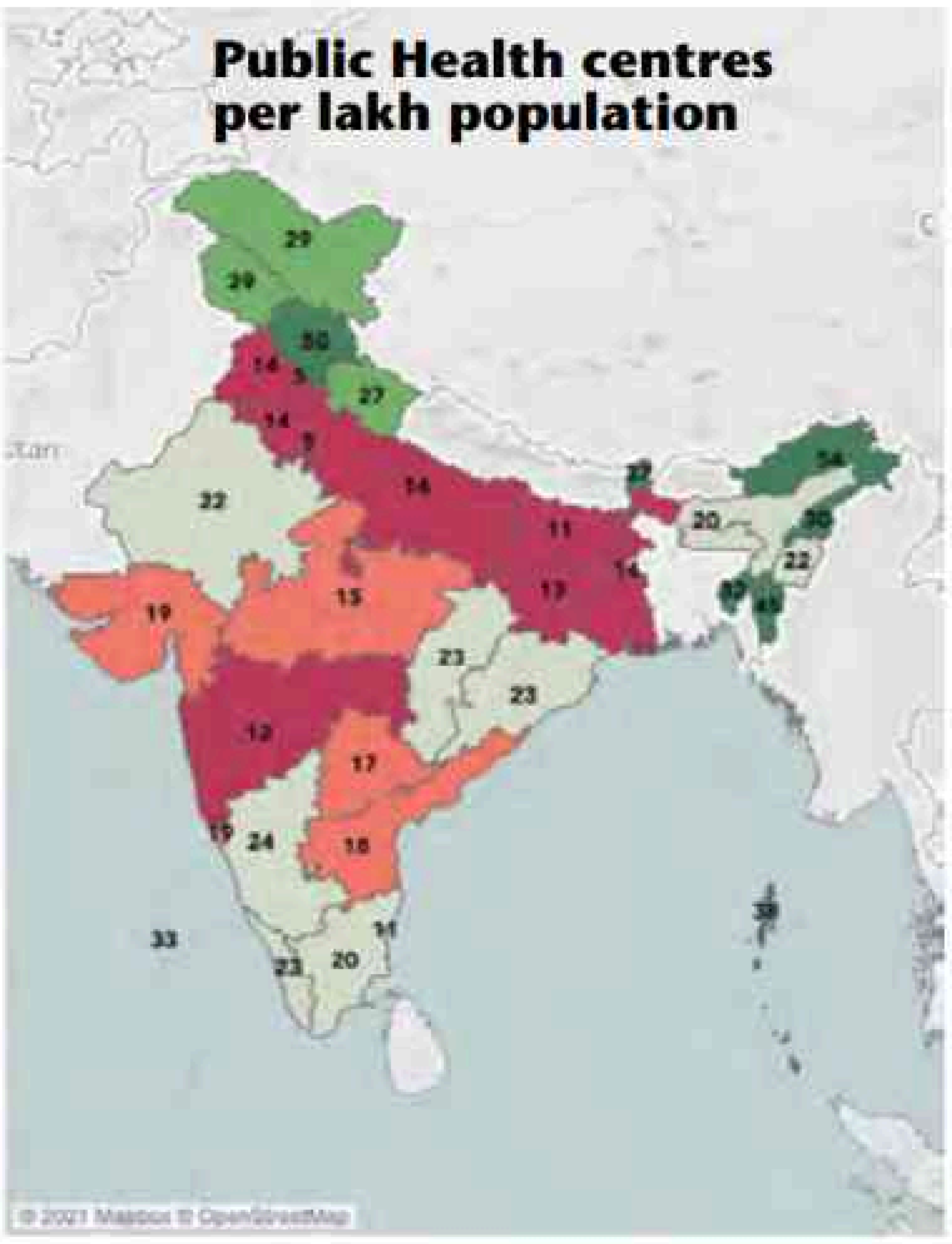
Contraception usage has fallen by 1.7 per cent since 2006-2016. In this time, there have also been notable changes in the forms of contraception usage across the country. However, female sterilization remains the most predominantly used solution.

The Public Health Centre Network

The general improvement of health across the nation could be attributed to the various health programmes being put in place and the increasing presence of Public Healthcare Centres (PHCs). From 2005 to 2020, 23,790 public health care sub-centres, 15,000 primary health care centres and 4,600 community healthcare centres have been added.

While the population in India increased by 20 per cent from 2005 to 2020, the number of public health centres witnessed a 13 per cent increase. Hence, the population covered by a single health centre has gone up and the availability and accessibility of health infrastructure have reduced. A deep dive into the PHCs indicates 1 PHC for every 4,000 people and 1 public health worker for every 300 people. This ratio is significantly skewed in some regions, with states like Uttar Pradesh and Bihar having twice as many beneficiaries for both PHCs and healthcare workers, while states like Tamil Nadu and Rajasthan have fewer beneficiaries than the average.


Public Health workers per lakh population


Public Health centres per lakh population

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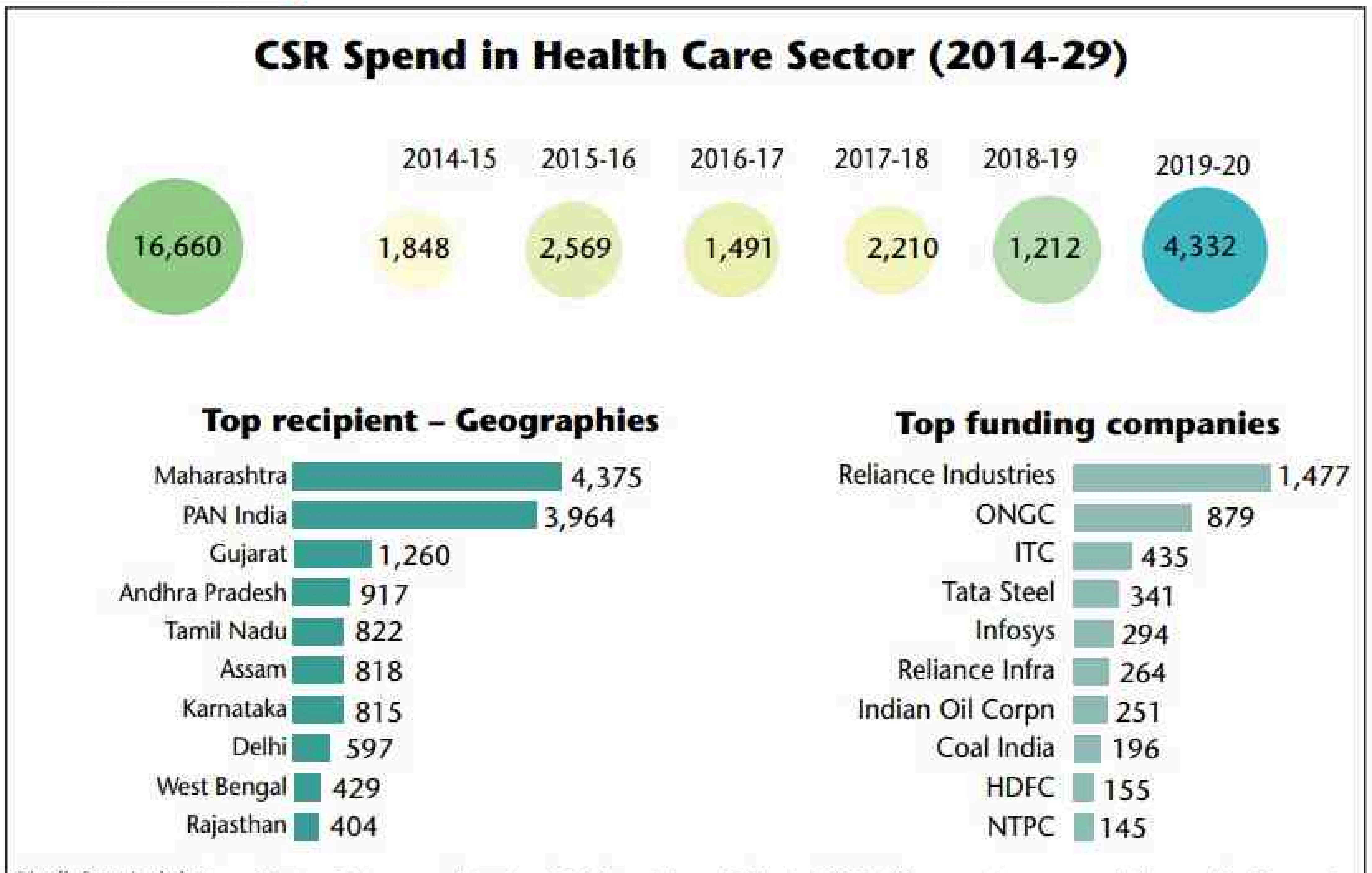
CORPORATE CONTRIBUTION

Over the last six years, the annual budget allocated towards health and the CSR spend in this area has been on the rise, with the annual budget doubling between 2016 and 2020 and the CSR spend doubling between 2018 and 2021. In the last 6 years, a total of ₹16,660 crores (18 per cent of total CSR) were spent in the healthcare sector.

The top 5 corporate contributors include Reliance Industries, ONGC, ITC, Tata Steel, and Infosys with a combined investment in healthcare at ₹3,426 crore. At ₹4,375 crore, Maharashtra has been the largest beneficiary of CSR investments in health and nearly equals the investment made in the next five states – Gujarat, Andhra Pradesh, Tamil Nadu, Assam, and Karnataka.

The joint efforts of the Indian government and corporate India are reflected in the progress seen in the health sector. Consistent efforts and investments can help the country move forward.


CSR Spend in Health Care Sector (2014-29)

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
16,660	1,848	2,569	1,491	2,210	1,212	4,332

Top recipient – Geographies

Maharashtra	4,375
PAN India	3,964
Gujarat	1,260
Andhra Pradesh	917
Tamil Nadu	822
Assam	818
Karnataka	815
Delhi	597
West Bengal	429
Rajasthan	404

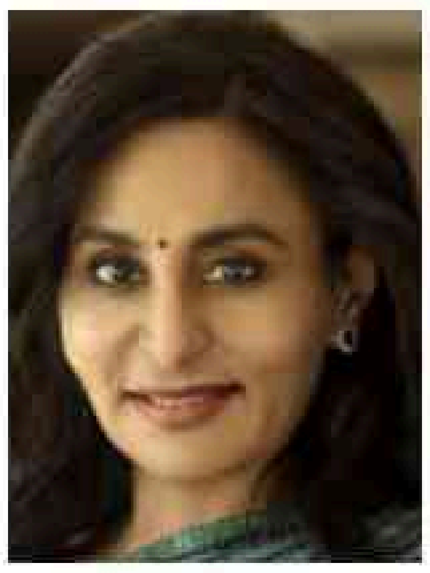
Top funding companies

Reliance Industries	1,477
ONGC	879
ITC	435
Tata Steel	341
Infosys	294
Reliance Infra	264
Indian Oil Corpn	251
Coal India	196
HDFC	155
NTPC	145

©IndiaDataInsights Notes: Data as updated on MCA portal as of March 2021. All amounts are cumulative and in (₹ crore)

Let's focus on total health

Building a healthier India is a joint responsibility – private players and individual members of the public should work in synchrony with the government



DR. SUNEETA REDDY

In 2019, the United States Business Roundtable changed its over-arching principle from being centred on shareholder primacy, to explicitly defining that the purpose of corporations is to benefit all stakeholders – customers, employees, suppliers, communities, and shareholders. This change affirms the role corporations can play in improving our society and sets the bar for a modern standard of corporate governance.

With the evolution and momentum of ESG frameworks and assessments around the globe, corporations are increasingly devoting attention to these themes. This is an acknowledgement of the fact that responsible corporations can play a pivotal role in achieving social, environmental and equity goals, thereby contributing to the UN SDGs in a significant way.

Health and well-being: With specific reference to my area of interest – Health and well-being, there is no doubt that concerted efforts by the public and private sectors can bring about remarkable improvements in three key areas: Access, Affordability, and Quality. I wish to share some illustrative examples of how Apollo Hospitals has worked towards these goals.

Access: Apollo Hospitals established a tele-medicine programme in India as early as the year 2000. We currently have over 700 installations around India and the world, and this enables convenient access to specialist care. Specialised solutions like Tele-Emergency, Tele-Radiology, Tele-Cardiology, Tele-Condition Management have evolved, and are currently deployed in urban and rural Public Health Centres in several states, empowering remotely located patients.

Affordability: In a country where over 67 per cent of healthcare spending is out-of-pocket, affordable healthcare is a priority. At Apollo Hospitals, offering a range of bed categories from the standard bed to semi-sharing, twin-sharing is an effort to make high-quality care affordable to larger sections of society. In addition, the cost of treatment and hospitalisation is transparently communicated to patients prior to any scheduled procedures through Assured Pricing Plans with the help of financial counsellors.

However, there is a cost to deliver quality healthcare in a financially sustainable way, whether in the private or public sector. Alongside, there is a pressing imperative to solve the barrier of affordability. The only way these two imperatives can be bridged is by building a strong programme for Health Insurance. This can be accomplished by a combination of initiatives. The government has already announced a meaningful family cover for around 50 crore beneficiaries under the Ayushman Bharat programme. However, we still confront the problem of the 'Missing Middle' in a country where private health insurance penetration is in the low single-digits.

As next steps, we could consider the following steps in a phased/stratified way: (a) Employees in the organised sector should be mandated to be covered by the employer under an attractive Group Insurance scheme

(b) Professionals such as Lawyers, Doctors, Chartered Accountants, Architects, etc., should be mandated to obtain health insurance cover for themselves and their dependents

(c) Affordable Insurance Policy for elders (aged 55 and above) to cover specific health risks arising from vulnerabilities of old age such as Parkinson's, Alzheimer's, Incontinence, Vertigo, Osteoporosis (among women). These steps will create the change in behaviour among healthcare consumers and will create sufficient risk pooling for insurers. This can help in eventually making Universal Health Insurance a reality.

Addressing the burden of NCDs: We must not forget the key challenge of Non-Communicable Diseases (NCD) that the world, and India faces over the next decade. These lifestyle diseases are developing rapidly and have grown to be 55 per cent of the disease burden of India currently. Disturbingly, they are affecting people in increasingly younger age groups, and resulting in deaths as early as age 30. The answer to this challenge lies in widespread awareness, prevention, screening, and early detection. As much as 80 per cent of NCD deaths are preventable, and we must make it our mission to do so.

In partnership with Microsoft, Apollo Hospitals has launched an AI-powered Cardiac Risk Assessment as part of our preventive health programme, by which risk of cardiac disease is predicted early on, and the individual can be supported to reverse the risk through lifestyle and behaviour modifications.

The Central government is piloting comprehensive health and wellness centres, and eventually aims to set up 1,50,000 of them. This is a pivotal initiative in taking population health to the last mile, and in ensuring that over time, disease burdens are controlled, with early intervention. This is another

The author is Managing Director, Apollo Hospitals

area where corporates can play a significant role, by adopting several centres under their CSR budgets.

Caring for the elderly: We have a duty to care for our elderly – India's geriatric population is growing at a fast rate and is expected to touch 194 million by 2031. As a responsible society, it is imperative that we sow the seeds of a social safety net for them now, which includes high-quality healthcare, in addition to dignified retired living options.

Total health: A model for happiness: Total Health is Apollo Hospitals' flagship CSR initiative, in Aragonda, Chittoor District, Andhra Pradesh. Chairman Dr Reddy's dream was to organically build a model of care in his native village, that extended from cradle to grave, and which also holistically addressed social determinants of health including nutrition, sanitation, water, education and livelihood, fitness, etc., as a model for the world.

Over 1,20,000 persons have availed clinical services under the programme. Their health records are integrated and digitised. Six nutrition centres provide nutritious meals to all expecting mothers. This intervention has ensured that there is zero Maternal Mortality and Infant Mortality in the area in the last two years, a complete reversal from worrying statistics earlier.

Over 5,000 women were screened for cancers of cervix and breast. Of these, 17 cases were diagnosed early, and successfully cured through surgical intervention free of cost. More than 500 women have been trained in areas of social entrepreneurship and are earning around Rs8,000 per month. All children attend school, and young adults are encouraged to participate in sports.

The model is now mature, is capable of replication across districts, and can work well in a public-private partnership model. The model is being used as a teaching case study by the Harvard School of Public Health.

Health and economy inextricably intertwined: While those of us in the healthcare sector have always been cognizant of the importance of health for the health of the economy, it took a once-in-a-lifetime pandemic for the broader collective to truly understand what health means for the economy.

In addition to creating meaningful, skilled jobs, the health sector keeps the country's workforce productive and engaged. And when healthcare infrastructure is inadequate, or the manpower is stretched or unaffordable, it creates ripple effects in terms of impact on individual families, on corporations and on local, regional and national economies.

To build this infrastructure, and the skilled healthcare workforce, we need investments in the sector at levels much higher than the historical range of 1-1.5 per cent of GDP.

Winston Churchill said, "Never let a good crisis go to waste". Perhaps one positive outcome of the shared experience of the last 20 months will be the acknowledgement of the primacy of health, and thoughtful investments in healthcare, both on the public spending, and private side. If building a $5 trillion economy is a stated vision for our country, then surely health must occupy centre stage in those plans.

Building a healthier tomorrow: Disease is not personal. It is a systemic problem requiring holistic solutions. Building a healthier India is a joint responsibility – private players and individual members of the public should work in synchrony with the Government. All our efforts should be towards ensuring participation of a new set of consumers who were previously ignored or completely shut out.

Margaret Mead once said, "Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed, it is the only thing that ever has." We must be that group. ◆

DS HEADQUARTERS
World's Number 1 Green building

> In the pursuit of improved prospects for the future generations and safeguard our resources, we work to balance environmental, societal and economic considerations. Our sustainability initiatives are spread across the country and in area of energy management, water management, material conservation, recycling and waste management. This aligns our business, social and environmental objectives to make significant contribution to the society and the country. This fulfils our ethos of responsible growth, while delivering superior value to all our stakeholders
>
> **Rajiv Kumar, Vice Chairman, DS Group**

The DS Group (Dharampal Satyapal Group) is a Multi-Business Corporation and one of the leading FMCG (Fast Moving Consumer Goods) conglomerate with strong Indian and International presence. Founded in the year 1929, it is an inspiring and successful business story that blends a remarkable history and legacy with visionary growth. The Group's portfolio is extensive and diverse with presence in Mouth Freshener, Food and Beverage, Confectionery, Hospitality, Agri, Luxury Retail, Tobacco businesses and also other investments. Rajnigandha, Catch, Pulse, FRU, Maze, Ksheer, Pass Pass, BABA, Tulsi, L'Opera, Le Marche, Birthright, The Manu Maharani and Namah are some of the leading brands, the Group proudly shelters today.

Guided by a clear set of values and built on a strong foundation of philanthropy, corporate social responsibility is an integral part of the Group's business objectives to enhance livelihoods and build sustainable communities. The Group works on projects across the country to achieve this objective with a focus on critical areas such as Water, Livelihood and Education, which have transformational impact on communities. Future-focused, the Group has been steadily expanding its 'green' initiatives, including Energy and Water Conservation, to reflect its response to what the world needs and its own role as a committed corporate citizen.

The DS Group Headquarters (Factories cum corporate office) situated at NCR, has been awarded Leadership in Energy and Environmental Design (LEED) Platinum certification, under the USGBC (US Green Building Council) existing building; O&M (Operation and Maintenance) programme version 4.0 for being a green building. DSHQ (Factories cum corporate office) is the leader amongst all LEED v4 O&M existing Buildings worldwide for two consecutive years and still holds the highest number of credits amongst existing green building projects clearly making it a global leader. LEED is a globally recognized symbol of sustainability excellence, signifying that a building is lowering carbon emissions, conserving resources and reducing operating costs, while prioritizing sustainable practices.

The Group's Vice Chairman Mr. Rajiv Kumar stated, "In the pursuit of improved prospects for the future generations and safeguard our resources, we work to balance environmental, societal and economic considerations. Our sustainability initiatives are spread across the country and in area of energy management, water management, material conservation, recycling and waste management. This aligns our business, social and environmental objectives to make significant contribution to the society and the country. This fulfils our ethos of responsible growth, while delivering superior value to all our stakeholders".

LEED evaluates green buildings worldwide on seven credit categories, which are then awarded points by USGBC. Significant work has been done by the Group in these 7 areas to earn the credits.

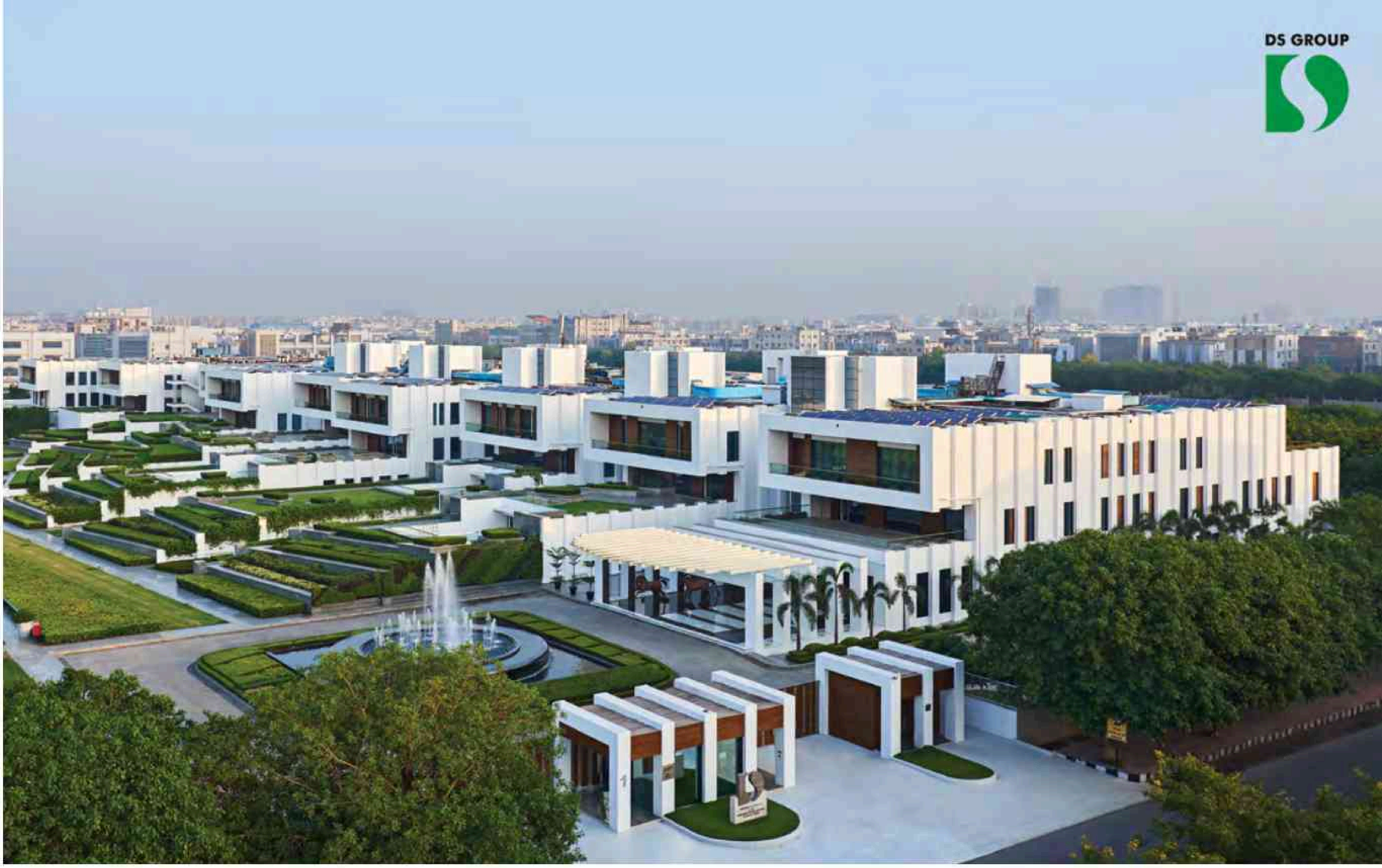
LOCATION AND TRANSPORTATION :

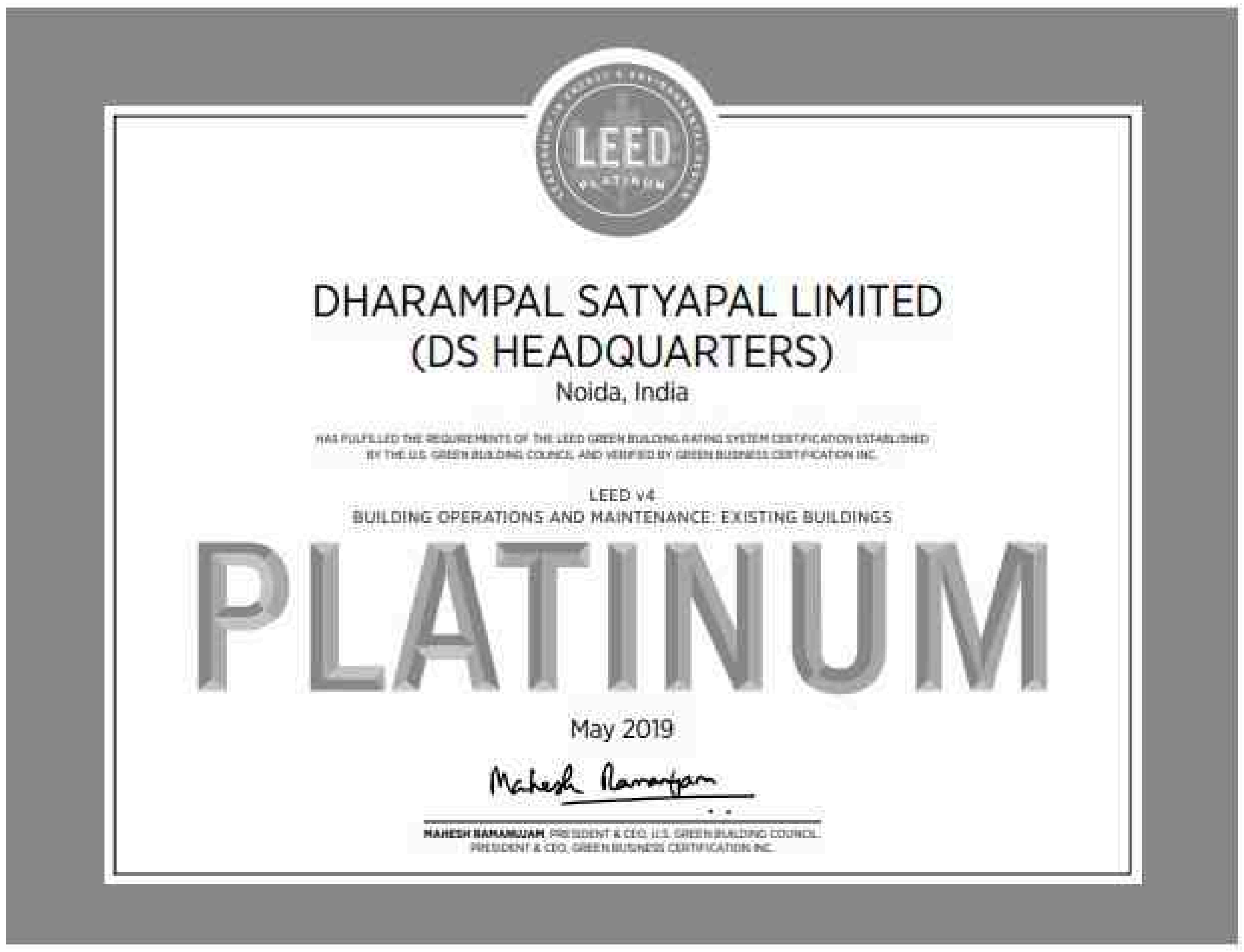
This category highlights reduction in pollution and land development effect from employee transportation.

As per the alternate transportation survey of, it was found that 73.6% of the total work force at the DSHQ uses alternate transport (pool car, shuttle bus services, green vehicle, bicycle etc.), which is higher than LEED maximum baseline of 70%. This results in approx. 4, 50,000 less CO2 emissions, which is equivalent to planting 21,600 trees per year.

SUSTAINABLE SITES

The Sustainable Sites credit has a purpose to preserve and improve ecological integrity, while supporting high performance building operations. The Group has taken various steps to improve the site hydrology, vegetation and soil quality by planting native plants, conducting soil testing, using organic fertilizer and reducing turf areas. In fact, the Group has devoted 26% area to native vegetation that requires less fertilizers, pesticides, water and at the same time negates other adverse environmental impacts. The building has 9 rain water harvesting pits, open grid pavers to reduce the storm water run-off from the site and enhance water quantity. The DSHQ also has an organic waste composter making it a close loop system of zero organic waste.





LEED PLATINUM

DHARAMPAL SATYAPAL LIMITED
(DS HEADQUARTERS)
Noida, India

HAS FULFILLED THE REQUIREMENTS OF THE LEED GREEN BUILDING RATING SYSTEM CERTIFICATION ESTABLISHED BY THE U.S. GREEN BUILDING COUNCIL AND VERIFIED BY GREEN BUSINESS CERTIFICATION INC.

LEED v4
BUILDING OPERATIONS AND MAINTENANCE: EXISTING BUILDINGS

PLATINUM

May 2019

Mahesh Ramanujam

MAHESH RAMANUJAM, PRESIDENT & CEO, U.S. GREEN BUILDING COUNCIL
PRESIDENT & CEO, GREEN BUSINESS CERTIFICATION INC.

WATER EFFICIENCY

Water Efficiency credit measures reduction in indoor and outdoor water consumption. The group has reduced the indoor water usage by 32% through low flow fixtures, water aerators, dual flush closet and water efficient urinals. Outdoor water usage has also been significantly reduced as the landscaping has been designed to limit the use of potable water for irrigation. Other measures like planting native and drought-tolerant species, using drip irrigation for trees, micro spray system for turf area and using STP (Sewage Treatment Plant) and ETP (Effluent Treatment Plant) treated water for irrigation has further reduced water consumption by 53%. Another significant measure is the installation of secondary RO Plant to the main RO reject line, which is equipped with high TDS sea membrane to blend the reject into irrigation water system resulting in Zero discharge.

ENERGY AND ATMOSPHERE

The Energy & Atmosphere section supports energy management, reducing environmental and economic harm associated with excessive energy use. In order to reduce greenhouse gas emission and achieve higher level of operating energy performance, reduce ozone depletion while minimizing direct contribution to climate change, the headquarters has been designed in such a way that more than 50% of the regularly occupied area has day light view, which reduces artificial lighting consumption. The actual energy consumption is 59% better than LEED national median and the group's EPA (Environmental Protection Agency) energy star score is 95.

MATERIAL AND RESOURCES

All IT equipment at the DS Group is US EPA ENERGY STAR Certified. These products consume less energy and automatically enter a low-power mode when not in use, thereby reducing utility and operating cost. More than 80% new wooden items purchased including plywood and board, is Forest Stewardship Council (FSC) certified against the LEED baseline of 75%.

INDOOR ENVIRONMENT QUALITY

In the Indoor Environmental Quality, DSHQ building implements commercial purification system to treat nearly 4.0 lakh CFM of air to control PM 2.5 and above particulate matters. The building uses low VOC paint material and Green Shield cleaning chemicals to enhance indoor air quality for well-being of the employees at the workplace.

INNOVATION IN DESIGN PROCESS & REGIONAL PRIORITY

In this category, the group has 100% credit rating and is committed to reduction of its carbon footprint. The building intends to get the carbon neutral status by end of 2022. The Group already has solar open access with a combined capacity of 5 MW which is further being enhanced to 8 MW. An EPR (extended producer responsibility agreement) has been signed to take care of the plastic waste collection. The group is working aggressively towards reduction of water and paper consumption with utmost priorities.

LEED certification validates the group's commitment on strategic integration of sustainability into the organizational Systems and Processes to anticipate and understand long-term trends and the effect of resources use. Like any other Sustainable organization, the DS Group also looks at holistic view of doing business emphasizing on the planet, people and profit, often referred to as the triple bottom line.

Tackling non-communicable diseases

Collaboration is the key to reduce mortality and morbidity

Dr. V. MOHAN

Until recently, communicable diseases contributed to over 60 per cent of all deaths globally. Today, they contribute to less than 40 per cent of all deaths. However, non-communicable diseases (NCDs) like diabetes, hypertension, heart disease, cancers, and mental health contribute to 55-60 per cent of deaths in most countries, including India. Diabetes is an excellent example of measuring the burden due to NCDs in a country. The reason is that it is extremely easy to measure the prevalence of diabetes even using a simple hand-held glucose meter and thereby get a good handle on the burden of NCDs in general.

According to the 10th Diabetes Atlas published by the International Diabetes Federation in December 2021, there are 74 million people with diabetes in India. The rise in NCDs like type 2 diabetes is driven essentially by lifestyle changes, particularly, unhealthy diets and lack of physical activity. It would be tempting for someone to say, 'why can't people just eat healthy diets?' One must appreciate that 'healthy foods' like fruits, vegetables, and nuts are expensive and often beyond the reach of the common man. This leads to consumption of fast foods and junk foods, which are mass produced, and therefore cheap. This has resulted in a massive increase in obesity rates, which is the forerunner of diabetes, hypertension, heart disease, and even some forms of cancer.

Physical inactivity is another major driver of the epidemic of NCDs. Again, it is wrong to assume that it is because people are lazy, that they don't do any physical activity. The truth is that we do not have safe environment for people to walk or exercise. Our cities are polluted. There are no safe footpaths for people to walk and the greenery, the so-called 'lungs' of every city are fast disappearing and being replaced by concrete jungles. It is no longer safe for children to play outside their homes, and playgrounds are being rapidly converted into commercial buildings. The increasing pressure on children and youngsters to perform academically leads to mental stress, which is the underlying cause for anxiety and depression, resulting in high suicide rates.

Thus, it is clear that a completely new paradigm using a multi-sectoral approach needs to be urgently adopted by policy makers, healthcare administrators, governmental and non-governmental agencies, educational institutions, and various ministries including agriculture, health, education, and sports, if the epidemic of NCDs is to be slowed down. The introduction of Yoga, Pranayama, and meditation right from the school level will help to improve physical and mental health. Apart from academic excellence, importance must be given to sports and extracurricular activities for entry into professional and other courses.

The author is Padma Shri; Chairman, Dr. Mohan's Diabetes Specialities Centre & Madras Diabetes Research Foundation

Due to advances in technology, healthcare costs are rising astronomically. As much as 70 per cent of healthcare in India is 'private' and therefore out of reach for many people. On the one hand, we promote medical tourism, on the other hand, our own countrymen are unable to afford high quality healthcare services. The introduction of universal healthcare with medical insurance coverage for the masses, can ensure that people do not fall into the 'debt trap' due to poverty. Schemes such as Ayushman Bharat taken up by the Government of India could be ideal solutions to offer optimal healthcare to people. Universal health coverage would include financial risk protection providing essential healthcare services and medicines, and also accessibility to safe, effective and affordable medicines for all as proposed by the World Health Organization.

A look at the SDG India Index 2020-2021 and the performance of the states, as published by the NITI Aayog shows huge discrepancy in the achievement of SDGs between different states. We must ensure a more equitable distribution of healthcare indices in all states of India.

The National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke (NPCDCS) was launched in 2010 as part of the National Health Mission (NHM). The programme focuses on strengthening infrastructure, human resources development, health promotion and awareness generation for prevention, early diagnosis, management, and referral to an appropriate level of healthcare facility for treatment of NCDs. Under NPCDCS, 677 NCD clinics at district level, 187 district cardiac care units, 266 district day-care centres, and 5,392 NCD clinics at community health centre level have been set up to ensure the treatment of common NCDs. In addition, NPCDCS gives financial support under NHM for awareness generation activities.

Healthy eating is also promoted through FSSAI. The Fit India Movement implemented by the Ministry of Youth Affairs and Sports, and various yoga related activities carried out by the Ministry of AYUSH are noteworthy.

A model for comprehensive healthcare: An excellent example of how comprehensive

> **An excellent example of how comprehensive healthcare can be delivered completely free of cost in a holistic and humane manner and sprinkled with a large dose of spirituality and empathy, is demonstrated by the Sri Sathya Sai Central Trust at Prasanthi Nilayam which runs Super Specialty Hospitals and General Hospitals at Puttaparthi (Andhra Pradesh) and Whitefield in Bengaluru, which treat several lakh patients every year, completely free of cost**

healthcare can be delivered completely free of cost in a holistic and humane manner and sprinkled with a large dose of spirituality and empathy, is demonstrated by the Sri Sathya Sai Central Trust at Prasanthi Nilayam which runs Super Specialty Hospitals and General Hospitals at Puttaparthi (Andhra Pradesh) and Whitefield in Bengaluru, which treat several lakh patients every year, completely free of cost. Nearly 1 crore out-patients and in-patients have been treated in these institutions since their inception.

Models such as this can be replicated as India has enough resources and philanthropists and corporates who can come forward to help India achieve the SDG health indices. Each corporate can identify one key area to support. Examples include promotion of healthy diets and physical activity, and stress reduction. Even small steps in these could play a big role in bringing down the mortality and morbidity due to NCDs in India.

With the emergence of telemedicine, it is now possible to reach the rural poor in remote areas of India. Again, the experience of Sri Sathya Sai Medical Mission is worth mentioning. Telemedicine centres were set up in Odisha, West Bengal, and Madhya Pradesh. This helped in regular follow up of patients who had been treated at the Super-Specialty Hospitals at Puttaparthi and Whitefield, and patients who needed to be referred again for further treatment. Such successful programmes can be adopted by others to ensure long-term follow up of patients who need chronic care.

Corporations can play a big role in spreading important public health messages through social media as well as print and electronic media, as their reach is huge. I am confident that if the business leaders come together to tackle NCDs and also join hands and support the government, mortality and morbidity due to NCDs can be drastically reduced. This will not only help achieve SDG-3 targets, but also improve the quality of life of millions of people in India. ◆

Business as a force for good

We must foster cooperation to carve a better and healthier future together

SURESH NARAYANAN

Food is a source of pleasure and nutrition, and good food is vital for a good life. Health and well-being of people is central to sustainable development, culminating in economic prosperity of individuals, families, communities, and the society. Businesses too have the propensity to play a significant role in shaping a sustainable future that has a positive impact on the planet and the people.

Corporates are not only expected to take the lead in delivering on SDGs but incorporating them as a guiding compass that can accelerate social impact. SDGs are a way to create shared value for all stakeholders and a commitment to humanistic social values and common good.

Sustainable development: The health of a company is intrinsically linked to the health and resilience of the society it operates in. Therefore, it is important that businesses adopt a holistic approach focusing on the well-being of consumers, customers, communities, and citizens. At Nestlé India, we take this seriously and sustainable development remains at the heart of our business.

In line with the SDG-3 that focuses on good health and well-being, we are committed to improving the health of individuals and families throughout peoples' lives. SDG-3 is brought to life at Nestlé India by constantly improving the nutritional profile of our products and by offering consumers clear nutrition information and portion guidance so that they can make informed food choices based on facts. Recognising fortification as an effective strategy to combat malnutrition, we have dialled up the nutrient profile of our mass consumption products with micronutrients to make nutrition more widely accessible.

We have taken several societal initiatives that focus on good health and well-being. Nestlé Healthy Kids Programme has been developed to raise nutrition, health, and awareness about active lifestyle among adolescents, by arming them with the knowledge that impacts them in a meaningful way. The programme is implemented in partnership with seven regional universities and Magic Bus India Foundation. Launched in 2009, the programme has expanded significantly. Till date, over 397,000 adolescents across 23 states have been encouraged to live healthier lives through this programme.

Our Project Jagriti encourages good nutrition and feeding practices, improving health at key life stages. It creates an enabling environment for the best health outcomes, involving the healthcare system and stakeholders from the community. Till 2020, the programme has reached out to 6.5 million beneficiaries across 8 States/Union Territories.

Strengthening our commitment towards building a healthier society and positively impacting the lives of people in marginalised communities, we launched 'Vriddhi', an initiative towards village adoption. The project focuses on improving access to clean drinking water for communities, promoting water-saving irrigation practices, increasing awareness on nutrition, enhancing farm productivity, and providing healthy learning environment in schools by improving hygiene and sanitation practices.

Corporate compassion: Extraordinary times require extraordinary responses. As part of our Covid relief activities, we contributed through feeding programmes comprising cooked meals and provision of ration kits. These were provided to migrant workers, waste professionals, street vendors, and Mumbai Dabawallas. We also contributed towards PPEs, medical equipment, and ventilators. We also set up oxygen plants across 5 locations as part of our Covid relief efforts.

A future better together: As we forge ahead towards a sustainable future, there is immense work that still needs to be done. This can be achieved through collective action, meaningful partnerships, and a common goal. It is important that we catalyze support, the private sector, multilateral organisations, governments, NGOs, and academia stay committed and collaborate to pursue opportunities to solve global challenges.

We must summon our spirit of 'Purpose'. We must harness new ideas and make SDGs a business imperative. Companies should anchor sustainability goals within different functions of their business, moving at both speed and scale and taking bold and transformative steps. It is important to create a monitoring framework and regularly assess the progress of the goals and its impact on environment and community.

Youth across the globe value companies that are committed to the society, community, and planet. Employees take pride in being associated with organisations that have a strong sense of corporate responsibility and consumers seek products that are sustainable and good for the community and society. As we stride ahead, we must foster cooperation to carve a better and healthier future together, leaving no one behind. The corporate sector must lead with compassion and empathy, create an impact, have a legacy for the generations to act upon for the future. ◆

The author is Chairman and Managing Director, Nestlé India

TATA STEEL NEST-IN

nest-in
A Tata Steel
Construction Solution

NESTUDIO CONSTRUCTED FOR WB TOURISM DEPT.

WITH INCREASING requirements for commercial and residential infrastructure across India, quality, speed of construction and a hassle-free experience are the need of the hour. Tata Steel has been pioneering in improving the quality of life. Taking this forward, Nest-In was launched in 2013, offering premium quality prefabricated offerings for building offices, residential complexes, institutions, industrial infrastructure, house extensions, sanitation solutions and much more.

Prefab construction, involves manufacturing of the building's components in a factory- controlled environment which is then transported to the final location for assembly and installation. It also offers a wide range of benefits when compared to brick-and-mortar construction, such as sustainability, more usable space and high degree of customisation.

With the advent in technology, Nest-In offers a wide range of products such as:

Nestudio – A range of end-to-end prefab solutions providing a premium living experience, comes in several designs with premium fittings. Nestudio is 5-6 times lighter than conventional construction and is a perfect solution to build a dream cottage, farmhouse, personal gym, office space and much more ensuring comfort, 10-15% more carpet area in the same available space. Whatever the need, Nestudio fulfills it with exquisite and tasteful designs, which is not just sturdy but stylish too.

HabiNest – A Light Gauge Steel Frame (LGSF) construction solution, suitable for residential complexes, Angadwadi buildings, community centers, academic buildings and more. HabiNest buildings are constructed in 1/3rd the time it takes for conventional structures and provide environmental savings of 48% to 61% over a range of life cycle categories. Nest-In, constructed a G+1 hostel for IOCL, Paradip and also a medical college campus with G+3 buildings, using the HabiNest solution.

MANIPAL LIBRARY, HABINEST

MobiNest – With the MobiNest solution, Nest-In has redefined portable cabins by ensuring standardised quality that cater towards meeting the fast-paced needs of the modern world. These cabins are used for site- offices, guard huts and more. Given Nest-In's presence and expertise in the construction space, the MobiNest solution was used as specialized isolation cabins and quarantine wards, to combat the Covid-19 outbreak. 128 MobiNest cabins comprising of 551-beds for Covid-19 patients, was set up for the Government of Kerala at Kasaragod district for the welfare of its citizens within a record time of 3 months.

Sanitation solutions – Being at the forefront of Government programs, such as Swachh Bharat Abhiyan that directly benefit individuals and communities towards a healthy living, EzyNest modular sanitation solutions was launched with the same motive. It is an end-to-end solution that aims at countering the sanitation problems where people do not have access to hygienic toilets and solve sanitation problems across different parts of the country. These steel-intensive modular toilets are easy to use and is suitable for installation in remote locations and harsh terrains as well. 10,000 EzyNest toilets were vastly deployed across the country to support the Swachh Bharat Mission.

Nest-In also introduced Smart EzyNest, which is an automated sanitation solution, enabling you to solve your essential sanitation needs with a smarter touch. It is a self-cleaning public toilet suitable for tourist place, airports, railway stations and more. It is equipped with smart features like restricted entry when there is no power or water, an automated occupancy indicator, pre and post-flush, easy to clean surface and floor material and periodic automatic spray cleaning. These modular toilets provide a hygienic environment for all.

Nest-In, through its proficiency in the prefab construction space, has effectively delivered improved solutions to a wide range of users through its offerings. Speedy construction, resistance to seismic forces, and superior quality of components & services makes Nest-In the perfect choice for all types of necessities.

Access, speed and automation

Robust health supply chains will be critical in fulfilling India's SDG-3 targets

ANSHUL SHARMA

KUNDAN MADIREDDY

As per the Sustainable Development Report 2021, India ranks 120 out of 165 countries in SDG performance. India's healthcare progress (SDG-3) is classified in the lowest category – 'major challenges remain'. Multiple indicators, including maternal mortality, TB incidence, universal health coverage are under the 'major challenges remain' category.

Healthcare supply chains form the backbone of the health delivery system. Today's last-mile healthcare supply chains rely on road-based transportation networks, which are not only slow and inefficient for last-mile deliveries of smaller payloads in rural India, but also ill-equipped to handle emergency shipments of lifesaving products. Road transportation also breaks down during natural disasters and increasingly flood-prone scenarios in India.

Drone-based automated supply chains can play a critical role in addressing these gaps. With the ability to fly 24x7 and in extreme heat, foggy, and moderate rain conditions in hills, forests, deserts, and any other terrain, aerial logistics systems can make India's last-mile health supply chains future-proof, sustainable and scalable.

Medicines from the sky: In September 2021, Telangana became the first state to pilot large-scale healthcare drone deliveries under the Medicines From The Sky (MFTS) programme. This is on the back of liberalised drone regulations in India. In MFTS, over eight drone consortia conducted 350+ flights in 45+ days, varying from 3-42 km distances. This project is a partnership with the Government of Telangana, World Economic Forum, Apollo Hospitals Group, Ministry of Civil Aviation, and NITI Aayog. It is Asia's largest such project on organised drone trials for healthcare deliveries.

Subsequently, estimates suggest that over 1,000 healthcare Beyond Visual Line of Sight (BVLOS) flights were conducted in more than 10 states. Covid and routine immunisation vaccines, essential and emergency medical products, consumables like syringes and gloves were shipped using drones.

These programmes have demonstrated significant impact. Drones cut down travel times manifold. For example, a route in Nagaland that usually takes 3.5 hours on the road took just over 20 minutes by a drone. Even in a state with good roads like Telangana, a 46 km route translated to an aerial distance of 26 km. Healthcare delivery drones are capable of 90-100 km/hr speeds and are unaffected by traffic and road conditions.

Drone-based automated supply chains create a virtual cold chain. The end-health facility does not need to maintain an extensive and expensive cold chain and power backup infrastructure. Also, it is not practical for a CHC or PHC to collect and store multiple cold-chain products like blood. In an urban location like Bengaluru, one can order ice cream on Zomato and Swiggy and get it within 60 minutes. Imagine that level of service for ordering medical products in remote and rural locations. Under 60 minutes grocery delivery is a fantastic convenience, but under 60 minutess medical deliveries can be lifesaving.

There is a precedence of this service in Africa, where drone-based supply chain systems have been running for over four years. Drones deliver over 80 per cent of Rwanda's blood supply outside the capital city of Kigali. Estimates suggest that overall, blood use went up by 175 per cent, and wastage and spoilage of medical products reduced by 95 per cent. Average delivery times went down from 4 hours to 30 minutes. In Ghana, over 300 drone routes serve 2,000 health facilities. Ghana was the first country in Africa to receive COVAX vaccine supplies due to its robust drone-supported vaccine delivery network.

Automated health supply chain systems result in several positive social, health, economic and environmental outcomes. They include increased health access and equity, reduction in time taken for medical deliveries, time savings for healthcare staff, reduction in mortality rates, improved immunisation rates, reduction in wastages, expiry and stock-outs, reduction in diesel consumption, and skill development for local youth in technology.

Four elements are essential for successful implementations of drone supply chains: complete support of the government and public health system; centralisation of supply chain points; strong drone partners; and catalytic donor and philanthropic capital. The last element played a pivotal role in catalysing the technology in public healthcare. The Bill and Melinda Gates Foundation, UPS Foundation, GAVI, and many other corporate partners in Africa have played a critical role in supporting these governments.

Through PPP models, donors, foundations, and CSR can support state governments and healthcare drone enterprises in establishing district and statewide systems. Ayushman Bharat's guidelines recommend expanding the range of services at the last mile as part of its ambitious programme of creating over 1.5 lakh health and wellness centers. Robust health supply chains will be critical in realising that dream and fulfilling India's SDG-3 targets. ◆

Anshul Sharma is Co-founder and CEO, Redwing Labs; Kundan Madireddy is Head of Partnerships, Redwing Labs

Focus on human well-being

We need to move away from statistics of the diseased and dead

DR SHIKHA NEHRU SHARMA

Good health and well-being are fundamental to human life. It cannot be emphasised enough that unless we fulfil this fundamental goal, all other goals will be hard to achieve. When we talk about good health, it is simply not the absence of disease. Our health goals are not limited to simple survival, but to be disease free and strive for optimal health. Whenever we look at the health statistics, it is usually morbidity (diseased population) and mortality (deaths). It is unfortunate that with this limited focus, all our time and energy is spent in looking at human health with the wrong lenses. Such numbers automatically create the solution of having more of sick care solutions. In effect we chase the goals of sick care management and control. This is similar to a situation where a highway project team builds a road with potholes and dysfunctional design which is prone to accidents and then puts in a requirement of having ambulances and hospitals to cater to the ensuing road accidents. We need to move away from statistics of the diseased and dead to measuring the contributors of health and work towards creating conditions which are pro-health and pro-life.

The definition of health has been evolving. It has eight facets. At the individual level they are physical, emotional, mental, and spiritual. These in turn are impacted by facets which connect us to the outside world – environmental, social, financial, and work. According to the ancient wisdom of Vedas, a human being is a multidimensional being with five sheaths or layers (Kosh) – physical made from food (Annamaya), breath (Pranamaya), emotional (Manomaya), wisdom (Vigyanmaya) and happiness/bliss (Anandamaya). Disturbances in these layers are the root cause of disease, for example, wrong eating, lack of exercise or sleep, wrong breathing. To the general reader these may seem abstract and unattainable, but a closer look will reveal why they are non-negotiable goals.

Physical health: This involves aspects like basic nutrition, adequate sleep and daily activity. Lack of nutrition (quantity) or bad nutrition (quality) impact this goal.

Emotional health: This is dependent upon the way we respond to the outer environment which is unpredictable. If our outer world has civic issues, strife and daily disruptions, it impacts our work and life.

Mental health: This is based on how we cope with our work, family problems, work-life balance.

Spiritual health: It is a factor not even considered in human health analysis, despite its ability to be our greatest source of strength and a lifelong insurance in an unpredictable world. Unfortunately, spiritual health gets mixed up with religion and leads to misunderstandings.

Social health: 'Man is a social animal' is a statement which has been repeated often. When we are isolated from colleagues and friends, we experience emotional distress. The pandemic exposed this problem as people rushed to their hometowns in search of emotional security and familial support.

Financial health: The truth is that health services are not taken on time due to an inherent fear of the expenses associated. Similarly, financial losses have a clear association with emotional, psychological, and physical health.

Work: At the basic level, corporates look at occupational health and try to mitigate accidents at work. However, work is closely associated with our life and purpose. When we find meaning and purpose in our daily work, the overall satisfaction is at a very high level.

Role of corporations: Corporations are vulnerable to employee sickness and loss of productivity. Hence, it is important to focus on talent remaining productive to deliver end goals. For this, corporations can:

- Make health a visible part of corporate life by making workplace wellness part of corporate cultureand celebrating employees who have chosen healthy habits
- Make health goals simple to reach by introducing workplace wellness programmes
- Gamify good health to remove the drudgery through healthy potlucks, health dashboards and games using fitness devices

Build health planning part of life planning: Making healthy cafeteria that provide healthy and delicious food part of the shift in corporate culture

- Making health more fun through introduction of fitness-wear on Fridays, health-oriented games, and inter office tournaments
- The key role of human resource management in today's turbulent times is ways to retain talent. Talent flows where there is professional satisfaction and financial growth. For this, the foundation is health and well-being. Corporates need a structure and certain tools to execute the goals on ground.

There are three key result areas that could help achieve success:

- Educate employees through simple and interesting infographics, videos, stories, and workplace discussions
- Participative Models where special interest groups take ownership of members within the group to have shared models of health and fitness
- Communicate and spread early success stories and learnings. Create online teams and spaces for celebration of health successes.

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The author is Founder, Nutriwel (Health) India

The joy of growing together

CSR and sustainability are seamlessly integrated with Balmer Lawrie's overall ecosystem

ADIKA RATNA SEKHAR

The Covid-19 pandemic triggered a monumental shift in the way businesses are operating today. There's no doubt that most of us are walking a tightrope and will have to do so for some time. Uncertainty is here to stay, and is now compounded by the war in the Ukraine. In these unprecedented times, Corporate Social Responsibility (CSR) and Sustainability assumes great significance and meeting Sustainable Development Goals is absolutely non-negotiable.

Balmer Lawrie is a very diverse organisation, which has a strong presence in both the manufacturing and service sectors. This diversity has helped the company stay strong and profitable. Very interestingly, this element of diversity has permeated into the various facets of the organisation including CSR and Sustainability.

Balmer Lawrie's CSR initiatives are driven by two flagship programmes – Balmer Lawrie Initiative for Self-Sustenance (BLISS) and Samaj Mein Balmer Lawrie (SAMBAL). While the first programme is directed at providing and improving the long-term economic sustenance of the underprivileged, the second programme aims at improving the living standards and quality of life of the population in and around the company's work-centres pan India. The focus areas for the schemes under the programmes, amongst others, have been on education, healthcare, sanitation, and integrated village development and the target groups include children, women, young people, the elderly and differently abled people.

The company is a founding member of the UN Global Compact in India and has also been publishing the BRR and sustainability report annually. Trust and transparency are keys to driving a culture of sustainable development and the company is committed in its journey to steer sustainable growth not only in its businesses processes, products and services but in the overall ecosystem comprising all its stakeholders and the community. A total sum of ₹514 lakh was spent during the year 2020-21, towards CSR.

To fight Covid-19, the public sector has done exemplary work, especially companies under the Ministry of Petroleum and Natural Gas (MoPNG), GoI. OMCs and steel-makers have added 10,500 oxygenated Covid beds in the country. These two sectors together had supplied the major part of the national requirement of liquid medical oxygen on a daily basis. Each of the oil PSUs including Balmer Lawrie under the administrative control of MoPNG set up Pressure Swing Adsorption (PSA) Oxygen Plants at various hospitals in different states as per the directive of the health ministry. In the current financial year CSR activities of PSEs are more focused on oxygen plant installation, oxygen cylinders and oxygen concentrator distribution, vaccination drives, distribution of mask and sanitisers to communities and distribution of food items to migrants and underprivileged families

There is immense scope for improvement in the various CSR activities undertaken by the Public Sector Undertakings (PSUs). There is a need for dynamic collaboration of efforts, and the interests of multiple stakeholders and beneficiaries need to be assessed. Additionally, the CSR initiatives of PSUs are aligned with the various initiatives of the Government and hence, companies have to be proactive in enhancing the transparency and credibility of the processes involved in the projects. Strict SLAs related to the role of external agencies in assisting the corporates with the planning and implementation of CSR activities are needed. Auditing and assessment are key for the success and sustainability of projects. Member companies have to find out ways and means to assist each other in realising the success of the various common projects. Balmer Lawrie has adopted two villages in Silvassa, Dadra Nagar and Haveli and one village in Taloja near its manufacturing operations and runs a robust 'capacity building project on health and hygiene' in association with the local administration and the implementation partner.

Balmer Lawrie's CSR initiatives are driven by two flagship programmes – Balmer Lawrie Initiative for Self-Sustenance (BLISS) and Samaj Mein Balmer Lawrie (SAMBAL)

The collaborative power of PSUs, private companies and even MNCs is immense. Former Secretary-General of the United Nations, Ban Ki-moon said: "Sustainable development is the pathway to the future we want for all. It offers a framework to generate economic growth, achieve social justice, exercise environmental stewardship and strengthen governance." Collaboration is a must to protect the earth and its people. ◆

The author is chairman & managing director, Balmer Lawrie & Co. Ltd

Health is wealth

Deep structural and sustained reforms are needed to strengthen the healthcare infrastructure

JINDAL STEEL & POWER

An express delivery

Through its healthcare activities, aligned with SDG-3, Jindal Steel & Power Ltd (JSPL) has been trying to improve the society's access to quality and affordable healthcare facilities – both preventive and curative. The healthcare programmes, run by JSPL Foundation, ranges from providing health measures in rural areas through mobile medical units to institution-based super specialty health services. It aims to lower IMR and MMR, combating child malnutrition, minimising anaemia in adolescent girls, creating open-defecation-free environment, operating telemedicine centres, combating HIV & AIDS and sustained healthcare for the differently-abled and establishing secondary and tertiary health services. The programmes are also aligned to the UN Sustainable Development Goals.

Shot on vivo S1
AI Triple Camera

Kishori Express beneficiaries at Nuh

Kishori Express, an anaemia control programme meant for adolescent girls, is implemented across 528 villages of Banarpal, Chendipada and Angul blocks in Angul district of Odisha and 87 villages of Punhana block of Nuh district of Haryana. The programme was launched in April 2011 in Chendipada block and replicated at Banarpal block in 2012 and, later, in Angul block in 2018. It's now operational in Nuh, Haryana too, covering Punhana block under the aspirational district programme of the government.

The vehicle, branded Kishori Express, is equipped with a touch screen computer, in which a quiz is conducted to create awareness among adolescent girls. It also has facilities like blood analysers, micro-cuvettes, swabs, seed kits, IFA tablets, sanitary pads, etc. It is staffed with counsellors, paramedics and computer operators too.

The team members counsel adolescent girls on health, nutrition and menstrual hygiene. Also, a haemoglobin test is carried out to check their HB percentage in blood. After the tests, the report is shared with the Health Department and ICDS for further follow-up. Girls in 'severe condition' category are advised to take high nutritional support to improve their HB level. Kishori Express also provides a seed kit – a pack of seeds of vegetables, which are rich in iron. The girls are encouraged to plant these seeds in their backyards for future consuming. The anaemic cases are referred to *anganwadi* centres, where they are given tablets.

The implementation process The project is being implemented by JSPL, in collaboration with the district administration, health department and ICDS. Dedicated teams from JSPL, with customised vehicles, are in the field for the implementation of the project.

The project implementation process involves a monthly micro plan, prepared in consultation with the government stakeholders; reaching out to the adolescent girls and sensitising them on health & hygiene; and sharing of reports with stakeholders.

At Nuh, Haryana, in one year after implementation, the project had helped and guided more than 22,000 adolescent girls. At Angul, the project covered 528 villages, attending to the needs of 2.28 lakh adolescent girls. There has been a 91 per cent reduction in severe-to-moderate anaemic cases and 93 per cent reduction in moderate-to-normal cases since the project started its operations in 2011-12 at Angul.

ASHA (hope) is a programme mainstreaming the differently challenged children, having multiple special needs through care, support and rehabilitation. It has been providing state-of-the-art rehabilitation services and vocational training, through its centres in Raigarh, Angul and Patratu. ASHA was established in August 2009, to give special education and therapeutic services to the special children living in the periphery of villages, so as to bring them into mainstream. The facilities offered cover rehabilitation services in daycare mode to nearly 130 children with disabilities regularly. They are also provided transportation facility from their respective homes to the centre and back.

Since inception, nearly 5,004 children have been provided with various rehabilitation services such as physiotherapy for mobility improvement; training to mentally retarded children, for cognitive, social and psychological development; training for speech and hearing impaired children; training to teach them skills to make them self-reliant; and appliances like prosthetic limbs, customised wheelchairs, hearing aids, calipers, etc.

The journey that started 11 years ago has had its share of barriers. A superstition that disability is a consequence of the deeds done in previous lives was prevalent. And the family expected the child to be magically healed in a short span of time. Parents' counselling sessions helped to remove much of the myths that were fogging their minds.

ASHA has also taken measures to engage the villagers in sustainable livelihood programmes. It provides training to the differently-abled in selected trades too. Its centre has invariably lived up to the expectations.

Today, the villagers come forward to get the differently-abled treated. Earlier, the aids and appliances provided by the NGOs were not customised to meet the individuals' needs; hence, they were of little use. Provisioning of customised appliances by ASHA centres has led to their continuous use.

As a result of the awareness and sensitisation programmes by the members of the academia, the schools for normal children have started to open up their doors for the differently-abled too. ◆

MINDTREE FOUNDATION

Health, hygiene and dignity

The vast majority of menstruating women in India face many social and economic challenges. Extreme poverty and gender disparity exacerbate this problem. Menstruation is treated as a taboo in much of India, further risking the health and wellbeing of women.

The Mindtree Foundation collaborated with Goonj for a programme that involved working with Kui tribal women to help them understand the importance of physical and menstrual health and hygiene. The team makes 'MY Pad' kits of sanitary pads from surplus cotton cloth collected in cities and distributes these kits free of cost to the tribal women.

Mindtree supports the awareness campaign of personal hygiene among the Kui tribal women

Each pack of Goonj's MY Pad clean cloth sanitary pads contains eight 'MY Pads' with three pad covers, one undergarment, an information leaflet, a waterproof pouch (made from used flex, based on availability) for a woman to carry her pad for washing and reuse, one set of women's clothing/woollens or *aasan* (sitting mat)/dari, toiletries/medical kits and other items of daily utility and Goonj ka Jhola (Goonj's handmade, eco-friendly cloth bags).

Through the *#NotJustAPieceOfCloth* programme, Mindtree supports 2,500 women and adolescent girls, discouraging them from using sand, ash, rags or cow dung during menstruation, and ensuring better health and hygiene. They also involve these tribal women in finding relevant circumstantial solutions to their problems, train them in specific skills, and help them earn a livelihood with dignity.

Community-level meetings The Mindtree Foundation has been driving the collection of surplus cloth year on year, collecting and sending old clothes to Goonj every month for making sanitary pads. To help these women open up on the subject of menstruation, community-level meetings and exhibitions on menstrual hygiene are conducted. In the interest of their health and hygiene, they are also encouraged to prepare nutritious food, set up kitchen gardens, make private spaces for bathing, clean water bodies, and so on.

When Reshma started menstruating at the age of 17, she would go to the well for a bath during her menstrual cycle. It was an open well without a boundary wall. As some young boys would also play near the well, she could not maintain personal hygiene and returned home feeling disappointed. She avoided going to the well for a bath for the next three days. After the awareness session, the villagers decided to build a bathroom around the well. This was well-received by the women, who could now maintain cleanliness and personal hygiene.

The Mindtree Foundation has been supporting this project for the last two years, benefiting more than

ONGC

A health pipeline

Siu-Ka-Pha Hospital

A patient is being treated at ONGC's Siu-Ka-Pha Multi-specialty hospital

The tiny town of Sibsagar in Upper Assam is blessed with tremendous natural resources and has a rich history. However, this historic town lacked basic medical facilities. ONGC has been operating in Sibsagar for the last six decades and was aware of the challenges.

In 2016, ONGC engaged PwC to carry out a need assessment study to understand the actual medical requirement of the region. The results were alarming; Sibsagar had 0.52 hospital beds per 1,000 people, less than half of the India average of 1.1 beds per 1,000. A majority of the patients had to travel either to Dibrugarh or Guwahati for secondary care treatment and people were travelling outside Assam for tertiary treatment.

Based on the findings of PwC, ONGC collaborated with Dr Babasaheb Ambedkar Vaidakiya Pratisthan (BAVP) for construction, operation and management of a 300-bed multispecialty hospital with the objectives of providing quality healthcare facilities to all sections of society at an affordable cost, reducing the hospital bed deficit in Upper Assam and providing tertiary care treatment locally. It is being implemented in three phases at a cost of ₹313 crore. BAVP is a not-for-profit organisation and has around 30 years of experience in providing quality healthcare at affordable cost to all sections of community. The Siu-Ka-Pha Multi Specialty Hospital was thus set up, named after the first Ahom King of Assam.

Even for a simple dialysis, people of Sibsagar used to travel to Dibrugarh three days a week, which was more than 90 km away. To address this critical issue of dialysis and other basic medical facilities, ONGC decided to start the first phase of the hospital before the scheduled timeline with 67 beds including eight dialysis beds, which has resulted in delivering affordable healthcare to the people. Further, the treatment is being provided at 70 per cent of the market cost, which ensures a steady inflow of OPD patients. In the last two-and-a-half years, more than 4,600 OPD patients have been served and 12,000-plus dialyses have been performed, which has ultimately ensured the sustainability of the hospital.

Passing on the benefits The OPD fee at the Siu-Ka-Pha Hospital is ₹150 which is less than one-third of other similar hospitals charge in the area. The net benefit/savings passed on to patients in the last two years only through OPD was ₹14.02 crore. Similarly, the cost of a single dialysis at a hospital in Dibrugarh was twice that of the Siu-Ka-Pha hospital. Accordingly, benefits worth ₹2.33 crore have been passed on to patients.

Affiliating the hospital with Ayushman Bharat and Atal Amrit schemes of the Government of India has ensured a regular inflow of patients which has resulted in initial sustainable operations of the hospital. Since, the hospital runs on a not-for-profit model with capital infrastructure coming up from ONGC CSR funding and the majority of the staff engaged from local areas, the cost towards recurring expenditure was minimal. The income generated from quality OPD, IPD, surgeries, pharmacy, diagnostic treatment, and pathology services, ensures the sustainability of the hospital.

In the last two years, more than 45,984 OPD patients have used the services of the hospital. As much as 12,135 dialyses have been performed. The hospital has ICU beds, special wards and general wards and is equipped with basic diagnostic facilities. Dialysis patients who earlier used to visit Dibrugarh, three days a week are now using the services near their home which has ensured more than 60 per cent savings. Other services are being provided at 75 per cent of the market cost ensuring quality treatment even for people from the economically weaker section of society. Moreover, the hospital is registered under the Government scheme of Atal Amrit and Ayushman Bharat, which has benefited large number of underprivileged families

During the Covid-19 pandemic outbreak in 2020, as an emergency measure, a 20-bed Covid-Care centre was set up and subsequently, during the second wave of the pandemic in 2021, another 40-bed fully equipped inflated Covid ward with oxygen facilities was set up in record time. Till December 2021, more than 620 Covid patients were provided treatment.

Once the third phase of the hospital is commissioned, more than a lakh of patient will be benefited every year. The Siu-Ka-Pha Multispecialty Hospital is significantly contributing towards achieving the objective of SDG-3.

The Siu-ka-Pha hospital currently has 67 beds. A total of 162 more beds will be added in 2022 and another 100 beds are planned to be commissioned in phase three. By 2025, more than one lakh patients will be using the services of the hospital every year. ◆

HITACHI INDIA

Upskill and reskill

At the point when the Covid-19 pandemic struck the world in 2020, there was much apprehension in terms of how India would address a crisis of this magnitude. One of the critical areas that needed immediate attention was the human capacity constraint amongst India's healthcare workforce.

According to an NSSO survey (2019), India had 20.6 healthcare workers for every 10,000 members of the population, as compared to a minimum threshold of 22.8 specialists suggested by the WHO. Moreover, as more healthcare workers could contract the virus, it would have placed further pressure on our health systems. Therefore, given their vulnerabilities, supporting healthcare workers in their capability to respond to the pandemic became fundamental.

Hitachi India's skill enhancement programme

To help in relieving and supporting healthcare workers in mitigating this threat, Hitachi India undertook an ambitious initiative entitled 'Covid-19 Skill Enhancement Programme' (CSEP) during December 2020-March 2021, to upskill and reskill 4,000 Covid-19 care-givers (doctors and nurses) across Maharashtra, Delhi and Karnataka. The programme contributed towards target 3.c of UN's SDG framework – "substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in the least developed countries and small island developing states".

The objectives of the programme were three-fold: imparting essential training rapidly to the Covid-19 care-givers (doctors and nurses), as well as other medical and nursing professionals serving in non-Covid hospitals; bringing standardisation to the patient care delivery across the nation; and reducing the need for daily repeated training for new batches and save significant time for hospital administration and clinicians.

To deliver the programme viably, Hitachi India collaborated with PlexusMD, a leading learning and career development platform for doctors and medical staff. The course endeavoured to build capacity in critical areas, such as appropriate utilisation of PPEs, contamination counteraction, isolation, quarantine and treatment protocols, management of biomedical waste and managing mental health among other aspects.

The programme was delivered on Medcast, an e-learning platform developed by PlexusMD and consisted of 12 pre-recorded sessions that were specially curated for doctors and nurses. Each session was followed by a self-assessment for evaluating the viability and achievement of learning outcomes.

This online training programme for Covid-19 was co-designed with Hitachi's inputs, considering the evolving necessities of the healthcare staff at the forefront, as well as aligning to pertinent guidelines issued by the ICMR (Indian Council of Medical Research) and MoHFW (Ministry of Health and Family Welfare), among others. As a result, the programme was certified by the Association of Physicians of India (API) and was recognised under their Continuing Medical Education (CME) requirements for ongoing training and upskilling. Additionally, in terms of outreach, various medical associations, such as Karnataka Medical Council and the respective state governments also partnered in the endeavour.

The entire programme received positive response from doctors and nurses alike, who observed the course content significant and timely, delivered in an engaging manner. The course set a broader context around dealing with infectious diseases generally, which will have relevance even as Covid-19 becomes endemic in the coming months. The lessons, conventions and protocols discussed in the course were practically applied by the doctors and nurses.

This initiative is an illustrious testimony of how best CSRs can collaborate with social enterprises to achieve transformative change, crossing the compliance hurdle. Hitachi, through such initiatives, is helping build a healthy, prosperous society and contributing towards India's healthcare system, by ensuring that each citizen can access quality healthcare. ◆

GIVAUDAN INDIA

Lead kindly light!

Givaudan's project saves children suffering from Retinopathy of Prematurity

The purpose of Givaudan India, a consumer services company, is to drive sustainable, long-term performance, while leading the way to improve happiness and health for people and for nature. As part of this, it has been challenging itself to have a positive impact on communities, particularly when it comes to delivering on its ambition that, by 2030, it would have improved the lives of millions of people in communities, where it sources and operates.

The company has been creating accessibility for little known but necessary services for premature babies, as also building a diverse portfolio of projects for different beneficiaries across the sites. Since 2011, it has been on a journey, impacting more than 500,000 individuals in different ways. Today, across four locations, Givaudan India has 11 projects in nutrition, blindness and water & environment.

Givaudan's products are ingredients utilised in nutrition, fragrance and beauty for other manufacturing companies. It has focussed primarily on community projects, which address nutrition and vision. In the area of eye health, Retinopathy of Prematurity (RoP) has been its flagship project, initiated in Jigani, Bengaluru in 2011. Today, the project has been scaled to two additional locations in Maharashtra – Ahmednagar (near the manufacturing unit in Ranjangaon) and Mumbai (head office).

RoP is a disorder, which usually develops in both eyes, and is one of the most common causes of visual loss in childhood, leading to lifelong vision impairment and blindness. It is observed in pre-term babies weighing about 1,250 grams or less, born before 31 weeks of gestation. An increasing number of pre-term babies survive due to improved access to facility based neo-natal care, ironically they are at risk of developing RoP. During the neonatal period, RoP is a silent disease and active screening by retinal examination is needed for detecting its presence, severity and need of treatment.

In 2011, Givaudan kicked off the project by supporting the treatments (lasers and injections) needed for the babies diagnosed with the condition. At that time, the outreach by the implementing agencies was limited to few neonatal ICUs (NICUs) in the city. From 2011 to 2017, as many as 122 babies were saved from becoming permanently blind.

Preventing blindness By 2018, a five-year plan was made to cover all NICUs and other units, where premature babies are cared for and treated (as needed) in 12 districts progressively in Karnataka. The programme expanded to four times its size in this time. Alongside this, the relevant medical personnel from the units identified were trained to diagnose the condition and treat the babies too. In 2018, a second chapter was launched in Ahmednagar. Here, workshops and on-the-job training were combined to build capacities and increase the pool of experts. In 2019, it was decided that a third chapter would be initiated in Mumbai and Navi Mumbai.

Since 2011, a total of 438 babies have been prevented from going permanently blind, after screening 4,578 babies multiple times to identify those at risk of developing the condition. Post-treatment, the screenings continue to ensure that there are no other visual ailments are developing.

Born premature at 28 weeks, weighing only 1,080 gm and having spent a month in the NICU, Baby BD was referred for an RoP screening. It was found to be RoP positive and needed urgent vitrectomy surgery for both eyes. Facing various challenges – finding a specialised hospital to operate on a low weight baby, as also financial challenges – Baby BD was referred to the Givaudan's RoP programme for the surgery. He was operated free of cost at 1.5 months. At 2.5 years today, he has perfect vision.

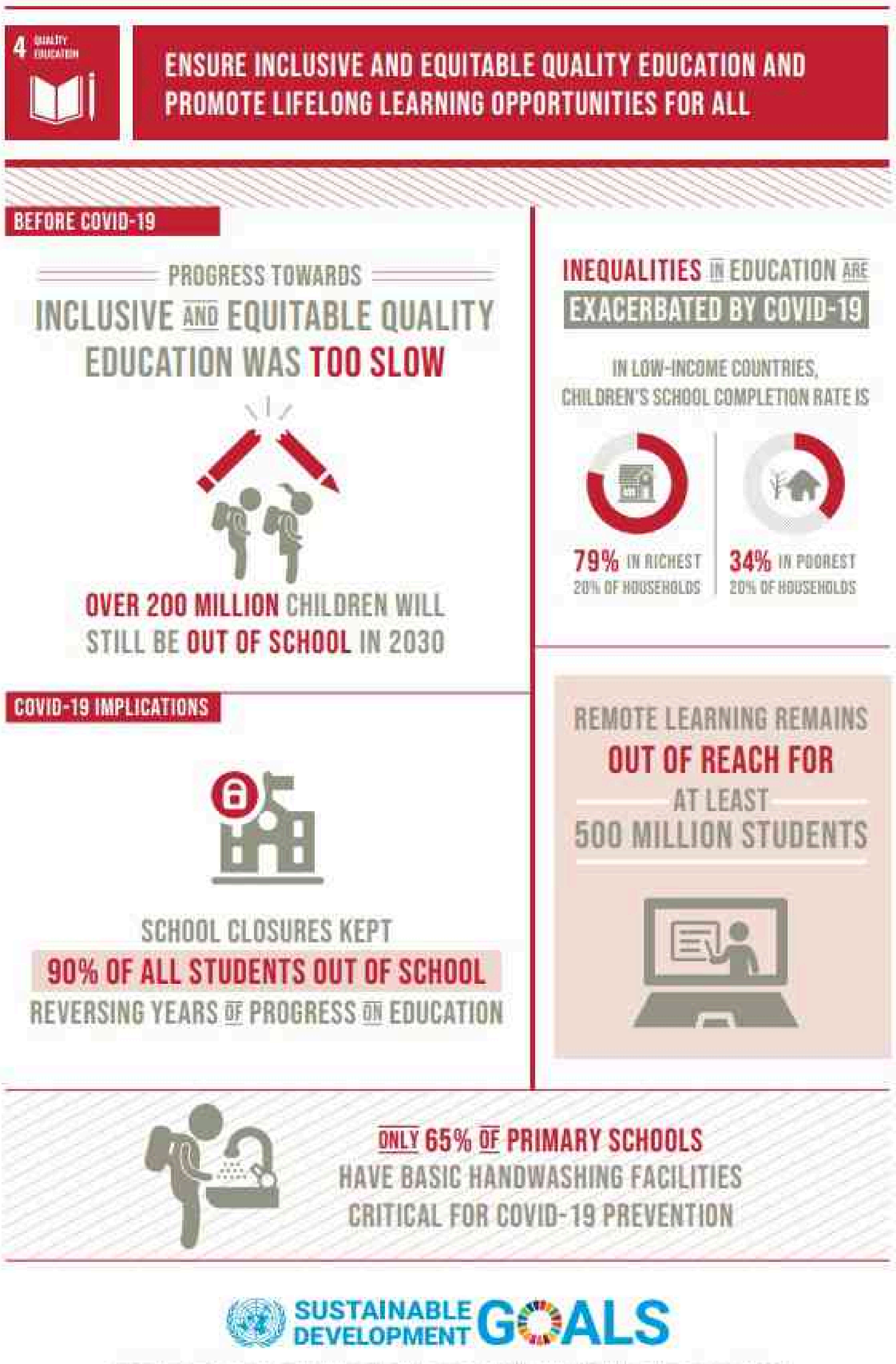
Screening, testing, diagnosis, treatment and follow-ups are at the forefront of the project. Givaudan India has so far invested more than ₹2.79 crore, covering extra equipment, vehicles and salaries across three locations. The company will invest another ₹1 crore between now and 2023 to complete screening of at least 1,000 babies with 150 surgeries.

Since its initiation, the project has been contributing to SDG-3 (good health and wellbeing). Contribution to this SDG in the project is not just about the babies only; it also promotes and supports the physical, emotional and mental wellbeing of the family.

Givaudan believes in the power of collaboration to drive change. Therefore, along with its partners, the company is preparing a white paper to invite other agencies to work together to tackle this health issue. "Working in the area of RoP is unique, as we are able to identify the affliction in the babies at an early stage and ensure a timely surgical intervention, which improves their quality of life forever," says Shanmugam Karthikeyan, director, Givaudan India. "This is the biggest way we can ensure that these children will have a strong start to a happy and healthy life." ◆

Goal: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

SANJAY BORADE



ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

BEFORE COVID-19

PROGRESS TOWARDS INCLUSIVE AND EQUITABLE QUALITY EDUCATION WAS TOO SLOW

OVER 200 MILLION CHILDREN WILL STILL BE OUT OF SCHOOL IN 2030

INEQUALITIES IN EDUCATION ARE EXACERBATED BY COVID-19

IN LOW-INCOME COUNTRIES, CHILDREN'S SCHOOL COMPLETION RATE IS

79% IN RICHEST 20% OF HOUSEHOLDS

34% IN POOREST 20% OF HOUSEHOLDS

COVID-19 IMPLICATIONS

SCHOOL CLOSURES KEPT 90% OF ALL STUDENTS OUT OF SCHOOL REVERSING YEARS OF PROGRESS ON EDUCATION

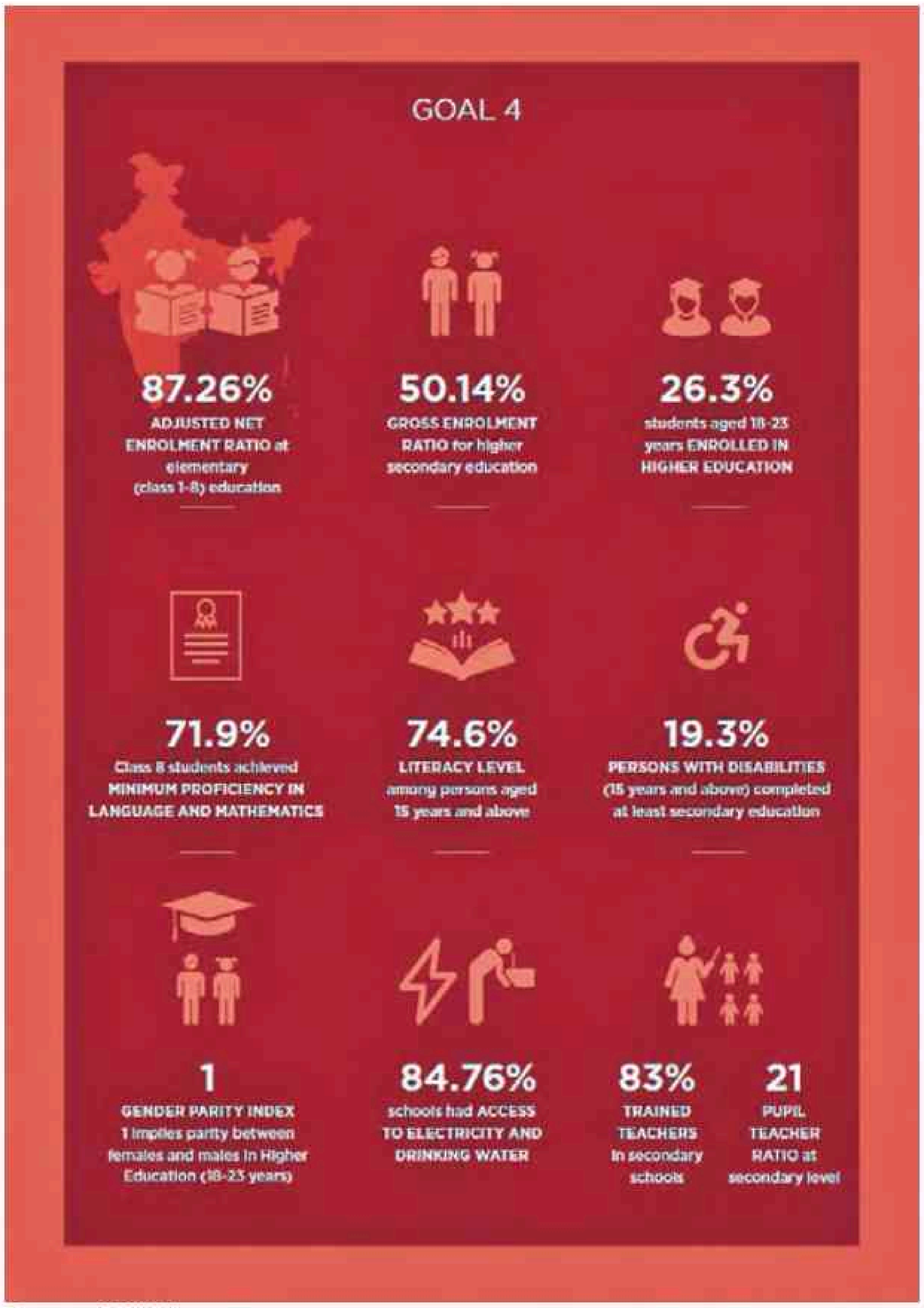
REMOTE LEARNING REMAINS OUT OF REACH FOR AT LEAST 500 MILLION STUDENTS

ONLY 65% OF PRIMARY SCHOOLS HAVE BASIC HANDWASHING FACILITIES CRITICAL FOR COVID-19 PREVENTION

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 4

87.26% ADJUSTED NET ENROLMENT RATIO at elementary (class 1-8) education

50.14% GROSS ENROLMENT RATIO for higher secondary education

26.3% students aged 18-23 years ENROLLED IN HIGHER EDUCATION

71.9% Class 8 students achieved MINIMUM PROFICIENCY IN LANGUAGE AND MATHEMATICS

74.6% LITERACY LEVEL among persons aged 15 years and above

19.3% PERSONS WITH DISABILITIES (15 years and above) completed at least secondary education

1 GENDER PARITY INDEX 1 implies parity between females and males in Higher Education (18-23 years)

84.76% schools had ACCESS TO ELECTRICITY AND DRINKING WATER

83% TRAINED TEACHERS in secondary schools

21 PUPIL TEACHER RATIO at secondary level

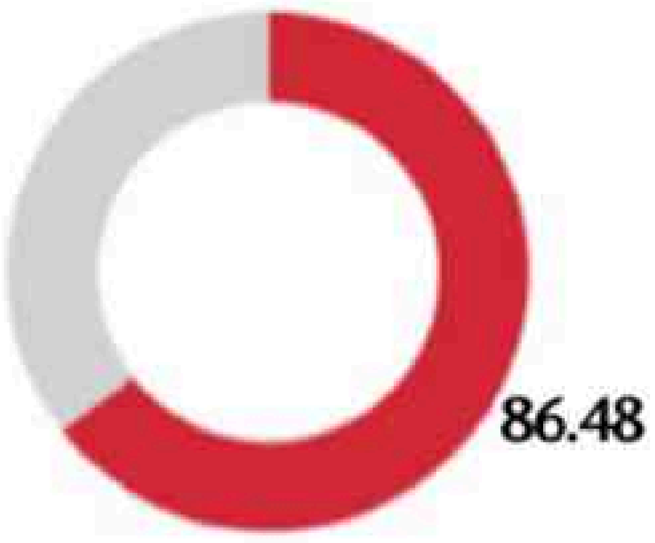
Source: NITI Aayog

4 QUALITY EDUCATION

Country Rank

97 /165

Score



UN Dashboard Status

Challenges remain

Trend

Decreasing

Education is one of the top SDGs across countries and is considered one of India's most important. However, despite these factors, India's quality of education has seen a consistent decline in recent years. As per the UN's most recent rankings, India ranks 97th in the world for quality education, with a score of 86.48, making it evident that significant challenges remain.

Based on goals set at the 2015 Conference of Parties, India's targets in this space for 2030 have been formulated as follows:

4.1 Ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

4.2 Ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

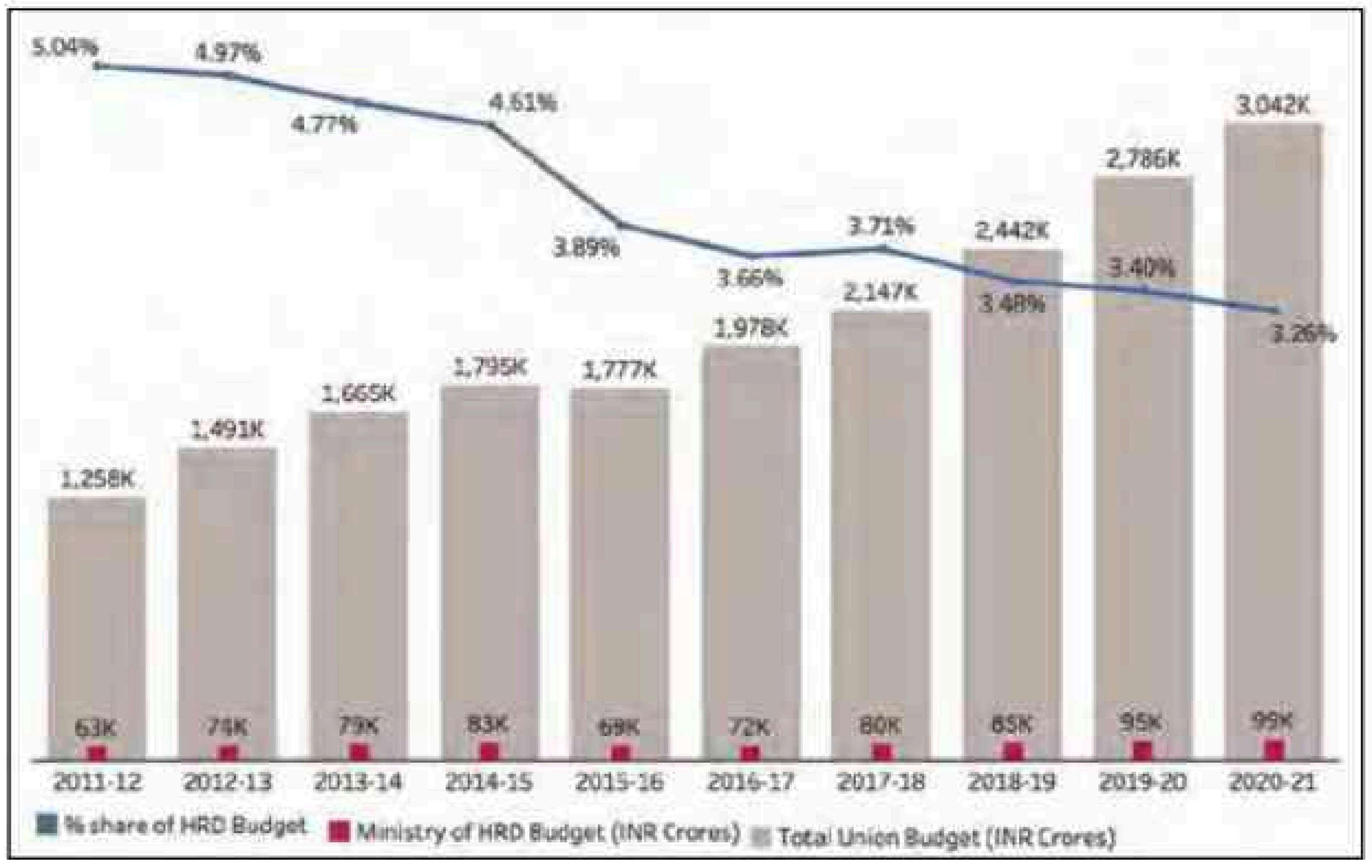
4.3 Ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university

4.4 Substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship

4.5 Eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous people, and children in vulnerable situations

4.6 Ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

4.7 Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity, and of culture's contribution to sustainable development



At the national level, India's budget for Education has seen a consistent rise on the surface, increasing from ₹63,000 crores in 2011 to ₹99,000 crores in 2020. While this appears promising, the percentage of the national budget allocated for Education over the same period has seen a substantial decline from 5 per cent to 3.26 per cent. This decline is especially problematic due to the consistent rise in population across the country, and could prove challenging in the nation's attempts to bridge literacy gaps and increase education rates.

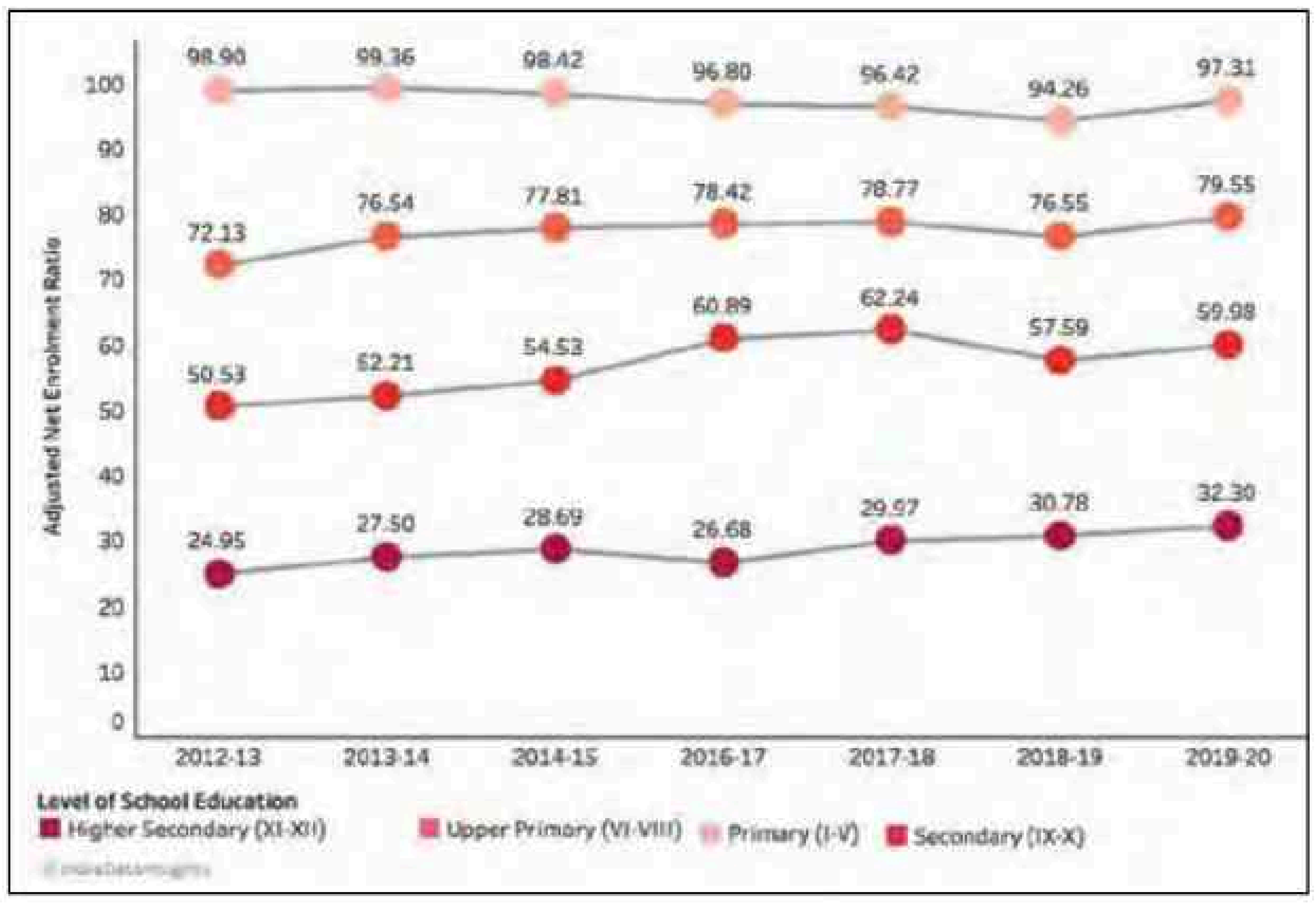
Despite a decline in funding for Education and the declining trend identified by the UN, literacy rates have shown a gradual increase in India across the last three decades. In 1981, India's literacy rates stood at 40 per cent compared to the global average of ~70 per cent. It has since increased to 74.37 per cent, trailing the global average by 11.88 per cent. This consistent increase in literacy across the nation can be attributed to national programmes and corporate efforts to increase the overall enrollment in educational institutions.

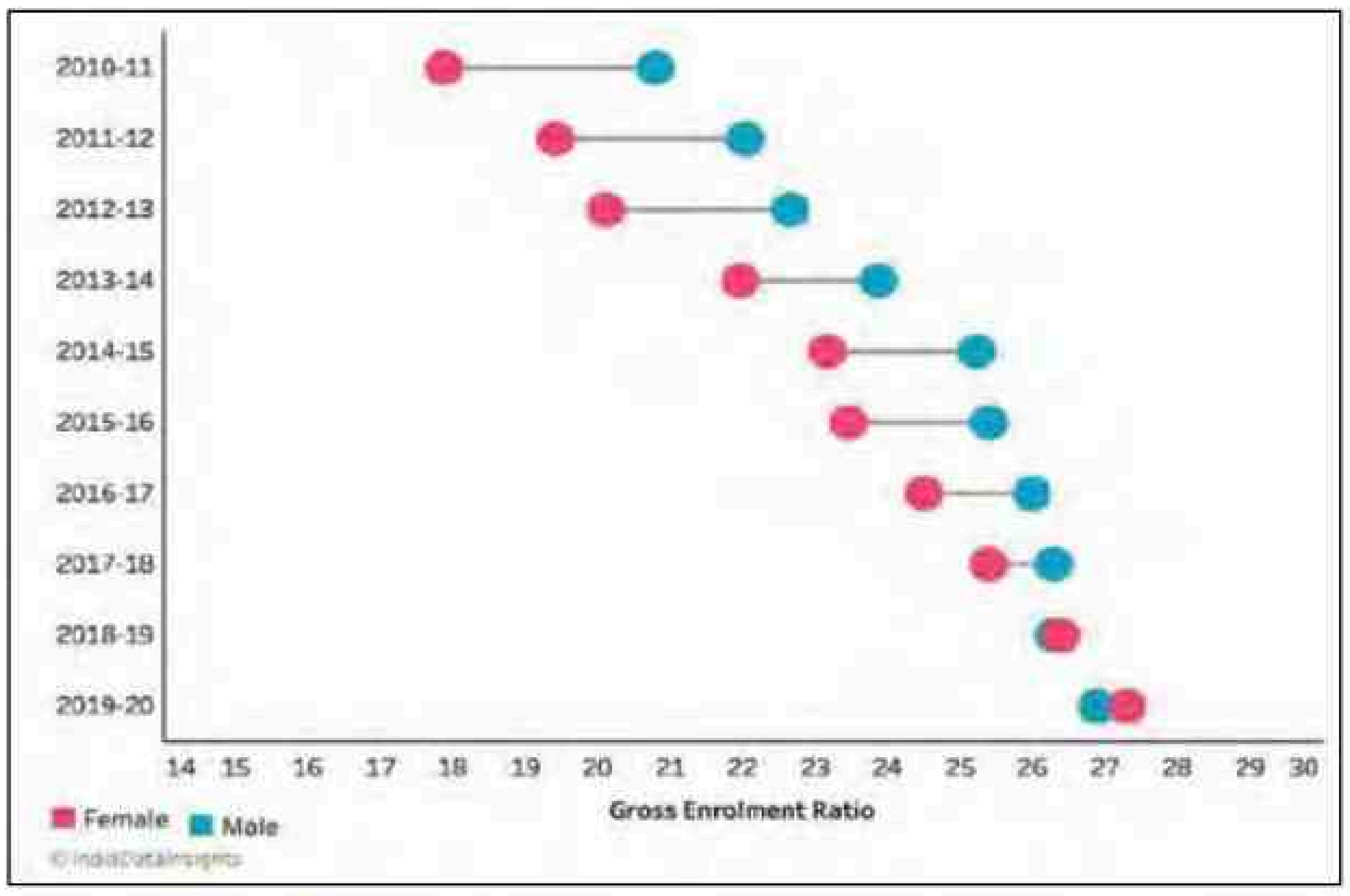
Enrolments from Pre-primary to higher education levels

One of India's goals is to ensure that all girls and boys have access to high-quality early childhood development through pre-primary education so that they are ready for primary education. Since 2012, enrollments in pre-primary schools have increased by 70 per cent, with the total number of students increasing from 79.88 lakhs to 1.36 crores, despite a decline between 2016 and 2018. These educational programmes have been run by Anganwadis and have helped provide early access to education to children between 3 and 6 years of age.

Across higher education levels, similar changes are prevalent. Among Higher Secondary (Grade XI-XII), enrolments rates have increased from 24.95 to 32.30 per cent between 2012 and 2020. Secondary (Grade IX-X) enrollment saw the steepest increase between 2012 and 2018, from 50.53 per cent to 62.24 per cent. However, a steep decline in 2019 meant enrollment rates had dropped to 57.59 per cent, which despite changes, remains to be a considerable improvement from 2012.

Primary and Upper Primary have also shown slightly erratic growth, with both seeing significant declines in 2018. In the last eight years, Primary (Grade I-V) enrollments dropped from 98.9 to 94.26 per cent in 2018, only to recover in 2020 to 97.31 per cent. Upper Primary enrollment rates increased from 72.13 per cent to 79.55 per cent in 2020, with a drop





of 2.22 per cent in 2019, resulting in a positive increase overall. While the net enrolment rates have been improving, Higher Secondary enrolment rates are meagre, at nearly half that of Secondary rates (59.98 per cent), showing there is still tremendous room for improvement.

These trends of declining enrollment are reflected in the drop-out rates between 2013 and 2020. While the drop-out rates at Primary level are very low, they are significantly higher at the Secondary levels, racing up to 21.49 per cent in 2016-17. Based on these rates, in 2020, it can be estimated that 1 in every 6 pupils enrolled at the Secondary level dropped out.

For students enrolled in Higher Education (between the ages of 18-23 years), there has been a steady increase in the Gross Enrollment Ratio (GER) over the last decade. While the year-on-year growth has been consistent, what stands out is the rate at which the GER of females in higher education has increased significantly. By 2019, the gap between male and female enrollment had closed, with female enrollment surpassing males in 2020. Also notable is that between 2010 and 2020, female GER has increased from 18 per cent to nearly 28 per cent, while during the same period, male GER has increased from 21 per cent to 27 per cent.

Contributing factor

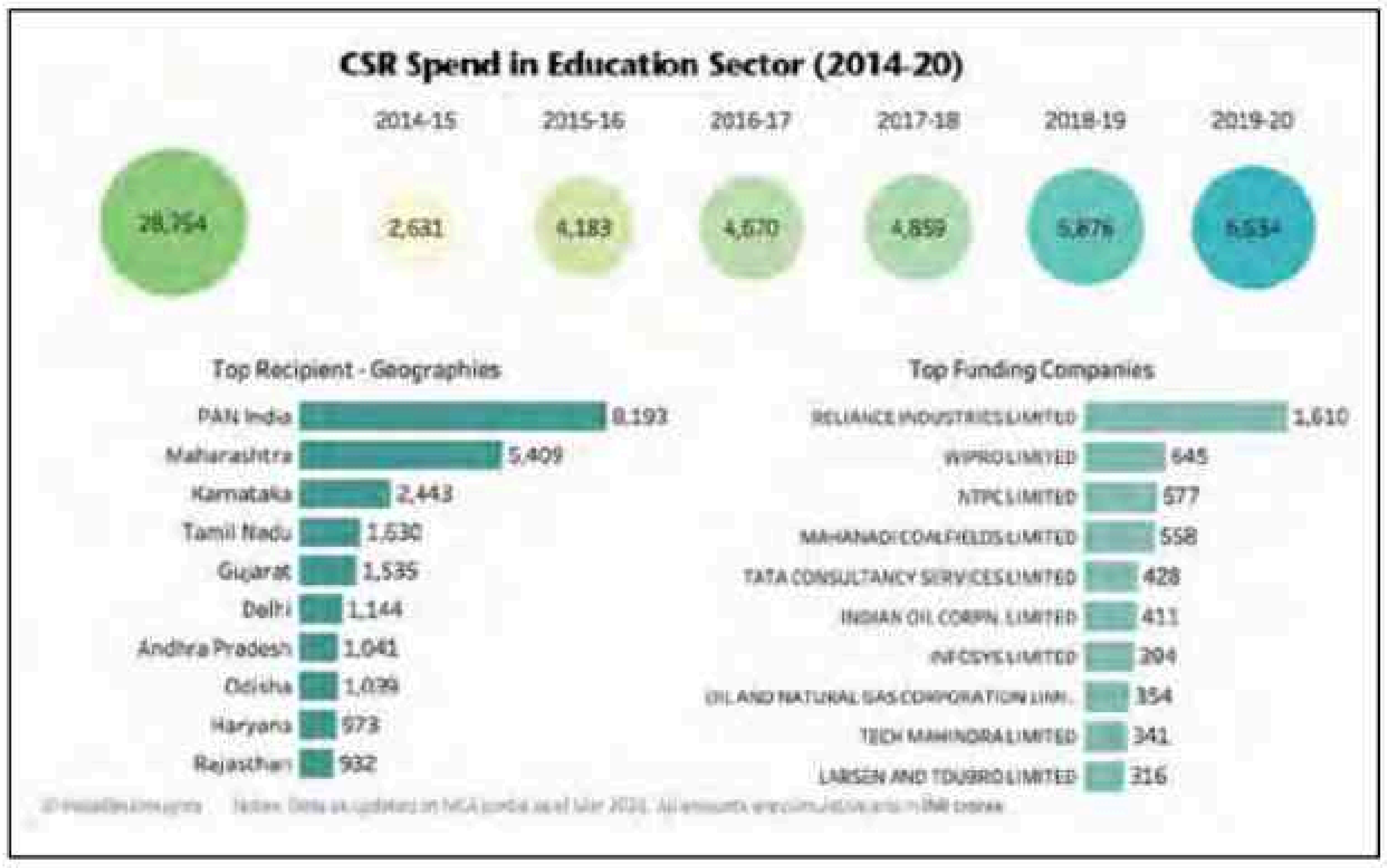
Various factors can contribute towards students' enrollment in schools, and the pupil-to-teacher ratio is a contributing factor. As per India's National Education Policy, the idea pupil-to-teacher ratio is 1:25 or less. As per 2019-2020 data, for Primary schools, 13 states had a pupil-to-teacher ratio that exceeds the standard, with Bihar having an average of 56 students per teacher, followed by Delhi, Jharkhand, and Uttar Pradesh having a ratio of 33, 31 and 31 respectively. A similar trend is seen in Upper Primary, where the ratio for Delhi, West Bengal, and Maharashtra are very high, at 30, 28, and 27 respectively. This could be a result of the increased population seen in these states or possibly due to poor funding. Learning Outcome Scores have helped identify the progress being made in schools. They are tracked as a part of the Performance Grade Index (PGI) score that is calculated as the average score in four subjects – Language, Mathematics, Science, and Social Science, with a maximum score of 80. In 2019-20, Rajasthan, Jharkhand, Chandigarh, Gujarat, and Karnataka had the highest PGI scores for grade VIII. This data corroborates the importance of the pupil-to-teacher ratio which was relatively good in all these states.

Basic infrastructure is another significant contributor which affects students' continued enrolment. Four key areas have been tracked in terms of basic Infrastructure at schools in India. These include essential facilities such as functional drinking water, functional toilets and sinks for handwash and accessibility such as ramps and handrails, which make classrooms easier to access. In 2019-20, it was found that 90 per cent of schools across India have essential facilities, 67 per cent had ramps, and only 43 per cent were found to have handrails.

Other vital facilities that affect both enrollment and learning in schools are the digital facilities such as functional electricity, computers and internet connectivity, and facilities for intellectual and physical growth such as a playground and library. Reports from the Department of School Education and Literacy show that 84 per cent of schools had libraries and 75 per cent had playgrounds, both of which were a 10 per cent increase since 2013. In addition, digital facilities have seen significant improvement since 2013. In 2020, 80 per cent of schools had usable electricity as opposed to 53 per cent in 2013. Similarly, computer access increased from 24 per cent to 38.5 per cent, and internet access increased from 7 per cent to 22 per cent over the same duration.

CORPORATE CONTRIBUTION

While government funding for Education hasn't seen a significant increase in proportion to the increase in student population, the sector has been garnering significant attention from corporates. Since 2014, the Education sector has consistently remained a top priority and has received 31 per cent of the total CSR spend (₹28,754 crores), which was directed not only towards education programmes but also towards special education. The top five corporate contributors in this space include Reliance Industries, Wipro, NTPC, Mahanadi Coalfields, and TCS. 43 per cent of this money was contributed between 2018 and 2020. Maharashtra tops the states with CSR receipts at ₹5409 crores, which nearly equal the amount invested in the next four states – Karnataka, Tamil Nadu, Gujarat, and Delhi.



These efforts are helping improve education in several parts of India. With sustained efforts, we can hope that the face of education in India will continue to improve, at least in quantitative terms. A lot of research and analysis is underway to analyse the qualitative levels of Education across levels. The National Education Policy 2020 has given guidelines and timelines for various aspects that would improve quality along with the GER pan-India.

AUTOMOBILE INDUSTRY PAVING WAY FOR SUSTAINABLE MOBILITY

electric
THE ALL NEW
ZS EV

Global automakers bring sustainable transformation to reduce carbon footprint to counter rising global warming.

Zero emission vehicles and carbon neutral manufacturing have been growing significantly in the automobile industry. With stricter emission norms and increasing awareness towards environment, auto makers as well as customers have started shifting towards sustainable mobility. The transformation has brought radical change in the means of connected cars, electric vehicles, shared mobility, and autonomous vehicles.

Few manufacturers have already started taking steps towards contributing their share with more environment friendly mobility options. With introduction of various techniques, manufacturers have managed to reduce carbon emission even during vehicle production. The inclusion of advanced technology and the rising production of electric vehicles has completely changed traditional methods of car production.

MG Motor India has recently launched the all-new ZS EV which comes with the largest in-segment 50.3 kWh battery, offering a 461 km certified range in a single charge. The all-new ZS EV has been restyled with striking exterior design elements, comfortable and premium interior, first-in-segment features like Dual Pane Panoramic Skyroof, Digital Bluetooth® Key, Rear Drive Assist, 360° Camera, i-SMART with 75+ Connected Car features, Hill Descent Control and much more. It also packs a globally certified (ASIL-D, IP69K and UL2580) battery that has passed 8 special safety tests, including fire, collision, dust, smoke, etc.

MG Motor India has taken significant steps to build a sustainable future not just by manufacturing electric vehicles but also by adopting multiple other green initiatives to steer this conversation forward.

EV BATTERY RECYCLING, MAKING ELECTRIC MOBILITY GREENER

MG Motor's 360-degree approach to sustainability has empowered the company to go above and beyond. The company has been at the forefront of promoting EV adoption; recycling batteries and launching modern EVs for its customers.

MG Motor India, in partnership with Attero, is on a mission to create a circular and sustainable EV economy in India. In doing so, they have successfully recycled MG's first EV battery and the metal extracts and various other commodities from the recycling process can be used to develop new batteries.

Rajeev Chaba, President and Managing Director, MG Motor India, said, "Ensuring end-to-end sustainability for electric vehicles is something

we are passionate about at MG. Since battery waste is a challenge for sustainable mobility, we believe battery recycling is the optimum way of bridging this void. We look forward to doing more work in this space to create sustainable, end-to-end solutions that will help us drive radical impact".

Nitin Gupta, CEO and Co-founder – Attero Recycling said, "As the momentum of EV players grows, it is becoming critical for India to have a sustainable approach to managing E-waste. It also holds the key to helping our country transition from a linear to a circular economy. We have the technology that enables us to extract almost 99 per cent of all metals from a lithium-ion battery and we envision making India Atmanirbhar in precious metals such as Copper, Lithium and Cobalt through these processes. We are delighted to join hands with MG and our partnership will be instrumental in strengthening the EV ecosystem and set an example across the industry."

ZS ELECTRIC VEHICLE SAVED 70 LAC KG OF CO_2 IN 2 YEARS*

***Equivalent to planting 42000 trees**

ADOPTING WIND SOLAR HYBRID ENERGY

MG has also collaborated with CleanMax to emerge as the first passenger car manufacturer to adopt wind-solar hybrid energy. As a part of the partnership, MG's Halol manufacturing hub will use 4.85 MW of wind-solar power supplied by CleanMax to conduct its operations, eliminating the use of 2 lakh Million Tonnes of carbon dioxide in 15 years which is equivalent to planting more than 13 lakh trees. MG Motor has also announced its latest initiative (Enviro Wash) to promote dry car washing, encouraging people to save up to 14 lakh litres of water per month per car.

Kuldeep Jain, Founder and MD of CleanMax said, "We are honoured that MG Motor India has chosen CleanMax as its sustainability partner. By supplying 50% of its power requirement from our Hybrid farm, MG Motor India will see significant operating cost savings, while also making a very impressive reduction in their CO2 emissions. We will also provide cost benefits to offer a hassle-free solution to the carmaker. Unlike standalone Solar or Wind power, Wind Solar Hybrid Power provides round the clock power supply, enabling consumers to meet a greater percentage of their daily power needs with renewable energy."

FURTHER STRENGTHENING ON ENERGY CONSERVATION AND SUSTAINABILITY

MG Motor India took yet another step towards sustainability. The company recently became the world's first automotive brand to use ULTRAX Degreaser, a liquid alkaline degreasing cleaner developed by PPG Asian Paints. The degreasing pre-treatment chemical launch aligns with the brand's focus on making sustainable mobility greener, leading to a CO2 reduction of 787 tons/annum.

Apart from the ULTRAX degreaser, MG Motor India conserves energy through Low-Temperature Phosphate (VERSABOND) and High Throw Low Cure Cathodic Electro Coating Paint, leading to a CO2 reduction of 325 tons/annum and approximately 388 tons/annum, respectively. These new technologies will support the company to enable a cumulative CO2 reduction of 1500 tons/annum.

> **Ensuring end-to-end sustainability for electric vehicles is something we are passionate about at MG. Since battery waste is a challenge for sustainable mobility, we believe battery recycling is the optimum way of bridging this void. We look forward to doing more work in this space to create sustainable, end-to-end solutions that will help us drive radical impact.**
>
> **RAJEEV CHABA**
> President and Managing Director
> MG Motor India

MG Motor has always been vocal about creating a sustainable automotive industry in India. The company has recently acquired ISO certification on Environment Management System (ISO 14001 – 2015) and Occupational, Health & Safety Management System (ISO 45001 – 2018). Furthermore, MG is also working towards instilling a carbon-neutral and net-zero emission approach in its operations.

Apart from the ISO certifications, MG Motor has already implemented a few other sustainable initiatives, including planting more than 7000 trees and adding 12 rainwater recharge wells to improve the groundwater level. MG has also worked on increasing energy productivity through Energy Committee and becoming a zero-waste landfill site. Furthermore, the MGI plant has been de-notified by State Government from MAH (Major Accident Hazard unit) to the non-MAH unit by eliminating the major hazard installation of 92 MT LPG and 22 MT LNG storage from premises.

MG Motor has also announced its latest initiative (Enviro Wash) to promote dry car washing, encouraging people to save up to 14 lakh litres of water per month per car. The company thrives on making sustainable mobility greener and intends to roll out other sustainable initiatives in the future. ■

Role of corporations in achieving SDGs

Corporations must play a role in co-creating a shared-future for all humanity

ERIC FALT

UNESCO has a tradition of re-envisioning education, at key historical junctures of societal transformation. From the 1972 Faure report that promoted the concept of 'Learning to Be' to the 1996 Delors Commission report that emphasised the importance of a humanistic approach to education and updated the concept of lifelong learning, UNESCO has played a key role in framing the big picture questions that drive the global debate on education.

Continuing that tradition, the International Commission on the Futures of Education led by UNESCO in its landmark report explored the regenerative potential of education in times of uncertainty and precarity. The report calls for a new social contract, grounded in human rights and values, required for education to build peaceful, just, and sustainable futures for all. It also recognises the need for urgent action to rebuild our relationships with each other, with the planet, and with technology, and outlines an agenda for transforming education.

For UNESCO, SDG-4 of the 2030 Sustainable Development Agenda, which advocates for 'inclusive and equitable quality education and lifelong learning opportunities for all', represents the core of the SDGs as it is both a goal in itself and a means for attaining the other goals. Not only is quality education an integral part of sustainable development, but it is also a key enabler for it. Therefore, making good progress on achieving SDG-4 targets is critical for achieving most other SDGs and stakeholders from all levels, including those from the private sector, must contribute to this endeavour.

In the context of India, the National Education Policy 2020 is a holistic, scientific and evidence-based framework that provides a robust foundation to address various challenges facing the Indian education ecosystem. Some of these include the quality of general education, school to work transition and the provision of work-based learning opportunities, the widening gender gap and the digital divide that disrupts the continuity of learning. Corporations and the private sector can play a role in tackling each of these challenges.

While India has made tremendous progress in improving access to school education, the quality and relevance of education must also be prioritized to ensure that children and students are actually learning and acquiring the knowledge, skills and competence to prepare them for the future. The 2018 Annual Status of Education Report (ASER) survey indicates that the average fifth grade student in India is at least two years behind in grade-appropriate learning. In addition to focusing on foundational learning, 21st century skills such as critical thinking, problem solving, and collaboration must become integral elements of the curriculum for tomorrow's learners.

So how can the private sector contribute towards improving the quality of education? Sparking pedagogical and curricular reforms through innovation, bringing efficiency and higher productivity in running government schools through public-private partnership models, and encouraging employees to volunteer as teachers, are only a few examples of how corporations could make a difference. When it comes to preparing youth for the world of work, corporations can engage more directly by offering high quality apprenticeship opportunities and providing master trainers and mentors who can provide guidance to young minds.

Another significant improvement in India relates to girls' education. Although girls' access to education has dramatically improved in the country over the last two decades, gender gap remains and tends to widen with rising levels of education. Dropout rates for girls in secondary school are much higher as compared to those of boys due to prevailing social norms and gender stereotypes. Evidence shows that hygiene and sanitation facilities play an important role in keeping girls in schools but physical infrastructure must be complemented with awareness and sensitisation programmes. Earlier this year, UNESCO New Delhi joined forces with Proctor and Gamble (P&G) to design and develop an awareness campaign along with teaching learning materials on puberty and period education, which would be integrated into the national and state school curriculum, and teacher education.

Digitalization and application of emerging technology is another important area where the private sector can contribute immensely. India is one of the fastest growing EdTech markets in the world garnering over $4 billion venture capital funding in 2021 alone and giving birth to several unicorn start-ups. However, these amazing gains must be translated into improving learning and socio-emotional wellbeing of remote rural populations including the most vulnerable and marginalised, especially in the context of the pandemic which has deepened pre-existing education inequalities.

The EdTech corporations in India must come

The author is Director and UNESCO Representative to Bhutan, India, Maldives and Sri Lanka together and tackle the learning disruption by improving connectivity and availability of local language content but also preparing teachers to cope with virtual learning environments. UNESCO's Global Education Coalition provides a good template for cross-sectoral collaboration with over 160 partners joining forces to mobilise financial and technical resources towards a unified response to the learning crisis.

Perhaps the most promising role that corporations could play in the coming decades would be to shape how Artificial Intelligence (AI) interacts with education. AI has the potential to enhance our understanding of the learning process by collecting and analysing very large datasets for learning patterns, pace, knowledge gaps, etc. At the same time, it could assist in the development of highly intelligent, adaptive, and personalised learning pathways for improved learning outcomes. AI can also empower teachers by automating administrative tasks, support formative assessments with instantaneous feedback, conduct remote proctoring, provide intelligent responses and remedial learning for students at the risk of falling behind.

Undoubtedly, AI offers enormous potential for creating impact by accelerating the progress towards achievement of SDG-4 targets. Yet it also raises fundamental questions about how technology will interact with learning in the future. We must pay close attention to the concerns of AI increasing bias, stereotyping, and discrimination in learning and remain critically aware of the limitations of AI. Otherwise, we run the risk of reinforcing existing power structures and problematic assumptions that tend to marginalise those who 'perform' learning differently than others.

As part of its mandate to support Member States in the development of robust, evidence-driven policies, UNESCO New Delhi has launched a series of annual State of Education Reports (SOER) for India. The upcoming 2022 SOER for India will focus on Artificial Intelligence in Education and cover many of these pertinent issues at the intersection of AI and education. The Report also aims to serve as a strategic policy tool for the Government of India and the education sector at large as it will highlight targeted recommendations for improved knowledge sharing.

Many of the cutting-edge applications of AI in education are being developed by the private sector which begs the question whether responsible, ethical, and human centred principles are followed in the design of such technologies. Deployment and use of AI in education must be guided by the core principles of inclusion and equity to ensure that technology is used for social welfare rather than adding only to private gains.

Just as business performance cannot be measured only in terms of profit and loss, progress on education goals is so much more than just measuring learning outcomes. In this regard, the commitment and buy-in of all partners is crucial for progress, and the private sector is an indispensable partner in achieving the larger 2030 agenda for sustainable development which goes above and beyond SDG-4. The novelty of SDGs lies in the creation of a shared narrative that all stakeholders can understand and engage with, from ordinary citizens to multinational corporations. As we progress towards the achievement of the 17 goals and 169 targets, it is important to reflect on some of the lessons and insights that have emerged so far.

First, the SDGs cannot be achieved without adequate funding. The current, annual investment gap stands at $2.5 trillion and it must be plugged if the global community is to make progress without leaving anyone behind. According to the United Nations Conference on Trade and Development (UNCTAD) estimates, the private sector has the potential to bridge this gap by at least $0.9 trillion annually.

The 2018 Annual Status of Education Report (ASER) survey indicates that the average fifth grade student in India is at least two years behind in grade appropriate learning

Second, it is important to understand the linkages between and among the global goals that cut across social, economic, and environmental spheres. Efficient and robust implementation of SDGs would require an integrated approach that could minimise potential conflicts among the SDGs and reap the benefits of potential synergies. While corporations drive the engine of economic growth, their activities also generate negative impacts which must be considered for a realistic and balanced view of their contributions. So instead of 'cherry picking' goals and targets that suit them best, corporations must help achieve all SDGs linked to their activities through their operations and their business model – not just finance it with philanthropy.

Finally, transformative, multi-stakeholder partnerships are a pre-requisite for creating lasting impact on the ground. Walking the talk requires real collaboration which is difficult to achieve unless we make a sincere effort to work together.

In this decade of action, corporations must play a role in co-creating a shared-future for all humanity and for that it is imperative that they reflect on their purpose and strive to become agents of social good. ◆

Building pathways

Quality education helps build an inclusive and sustainable society

RAJASHREE NATARAJAN

Quality and holistic education is essentially a journey towards inclusion, encompassing the learning paradigms of self-reliance, inter-dependence, and universal inclusion. As a first step, education should focus on imparting skills required to perform tasks essential for independent living, including language skills necessary for life-long learning. Moving from learning to being self-reliant to appreciating the interdependence of people in the community and environment around us is the next big step in learning.

The processes of education should focus on building the necessary skills to observe, listen, interact, reflect, communicate, support, and collaborate with people around us to create a sustainable, better world for ourselves. It is essential to nurture the fundamental human values and skills for critical thinking in every individual, helping them choose the right path, discriminating the right and wrong, and blossoming as a lifelong learner. Quality education not just helps an individual lead a well-balanced and happy life but strives to bring equity to all, enabling us to build an inclusive and sustainable society.

Education should empower every individual to journey through the paradigms of

- Becoming self-reliant individuals
- Bolstering diversity and inter-dependence within communities
- Blending into a universally inclusive society

Although many educational institutes worldwide start with a lofty vision and broad objectives to impart holistic and inclusive education, over time, owing to several constraints, the focus narrows to a few tactical outcomes such as increasing student enrolment year-over-year and achieving academic results.

Against the backdrop of the pandemic, the National Education Policy of India 2020 was released with a strong focus to bring a paradigm shift in the Indian Education system. The focus is on holistic and multidisciplinary education that provides equitable and inclusive learning for all, with active community participation and technology integration. Education in India is catered by government and private institutes, each with distinct objectives and priorities. The private education sector remains highly fragmented and is primarily run by private trusts, societies, and local management committees. The sector also attracts philanthropic grants and private investment for building digital infrastructure, complementing the Government efforts on ICT in education such as DIKSHA and SWAYAM.

It is essential to recognise the critical role played by teachers across government and private schools embracing the change to online education, equipping themselves with necessary technical skills to ensure learning continuity during school closures. Numerous CSR projects in India strongly focus on the education sector. They have played their part in supporting teachers, educating parents, and complementing government efforts to make learning possible through multiple channels.

It is heartening to note that education remained a priority area for many corporates as part of their CSR programmes, despite additional spending in Covid relief and impact on their business. Corporate volunteers complemented the well-meaning efforts by NGOs and teachers to train teachers to use technology effectively and help them in content creation.

While these technology-led innovations offer numerous and diverse learning possibilities, the pandemic has exposed the startling disparities in access to education through digital mediums across different strata of society. Online education was a distant dream for more than three-fourths of this population due to lack of access to digital devices and internet connectivity when the pandemic impacted about 247 million children from primary and secondary schools. Children with disabilities are even more severely affected due to their lack of access to learning resources and stimulating early childhood activities during the pandemic, as highlighted in the UNICEF report – 'Children with Disabilities – Ensuring inclusion in Covid-19 response'.

A White Paper on India's National Education Policy and Disability Inclusive Education, published by the National Centre for Promotion of Employment for Disabled People, points out the challenges in disability-inclusive education and highlights opportunities for transformative action. This report underlines the low enrolment of students with disabilities in schools and, in particular girls with disabilities and a very sharp decline in enrolment of students with disabilities in higher education. The State of the Education Report for India 2021, 'No Teacher, No Class' published by UNESCO highlights the shortages of teachers in early childhood education, special education, physical education, music, arts, and vocational education. The report also highlights how vulnerable they are in terms of job security and

The author is CEO, Cognizant Foundation working conditions that are critical for achieving the goals for inclusive education.

At Cognizant Foundation, our initial projects in education focused on mainly strengthening the technology infrastructure and technology integration in the classroom with a special focus on making education content accessible for children with disabilities, specifically the visually impaired and hearing-impaired. Creating pathways for such inclusive development has been one of our key priorities at Cognizant Foundation, a theme cutting across our focus areas of education, healthcare, and livelihood. We learned from these pilots the following key factors to achieve the desired outcome and sustain it over a long period.

- Contextualise education content to meet the learning requirements of children based on the nature of their disabilities.
- Design systemic interventions that address specific gaps in the system, such as accessibility of STEM content for children with vision impairment.
- Support teachers using technology for their professional development and experiment with new pedagogies integrating ICT in the classroom to reform teaching-learning processes.
- Nurture the culture of peer learning and mentoring within a 'community of learning'.

Over the years, we sharpened our focus on capacity building for inclusive education as part of our Foundation's efforts. Our project to support students pursuing BEd Special Education with scholarship meets a critical requirement in the education sector for increasing the pool of special education teachers. With a focus on strengthening teacher education for inclusive education, we have partnered with the Tata Institute of Social Sciences to develop Open Educational Resources for inclusive education, contributing to certificate courses and developing a masters' level specialisation in inclusive education.

One of the other critical components of our flagship programme is for supporting trajectories of inclusion in higher education through scholarships for undergraduate degrees and employability training for visually impaired students. We have partnered with Enable India to develop a cloud-based open learning platform to enable visually impaired users to learn computers independently, with very little or no help. We have also partnered with Madras Dyslexia Association to set up resource rooms in schools and train teachers to support children with dyslexia.

Persons with disabilities often remain socially excluded and are often limited by educational and economic opportunities. Ensuring inclusive and equitable quality education cannot be achieved without the active participation of private enterprises, NGOs, and civil society. The various experiments conducted by corporates as part of their CSR projects have brought out many innovations in education, which is a healthy trend that could accelerate the cause of inclusive, multidisciplinary learning.

Many technological innovations have sprouted to deliver quality content through various channels such as mobile phones, community radio, television broadcasts blending them with door delivery of physical learning aids and worksheets during the pandemic. These innovations need to be systemically evaluated, adapted, and scaled up, focusing on inclusion and early childhood interventions, ensuring no child is left behind.

The education financing from corporates needs to be coordinated with adequate community participation aligning with extensive government efforts to create a significant and sustainable impact. We need a framework for good governance, empowering teachers, and efficient use of resources across educational institutes run by Central, state, local government bodies and private institutions as envisaged in the new education policy. ◆

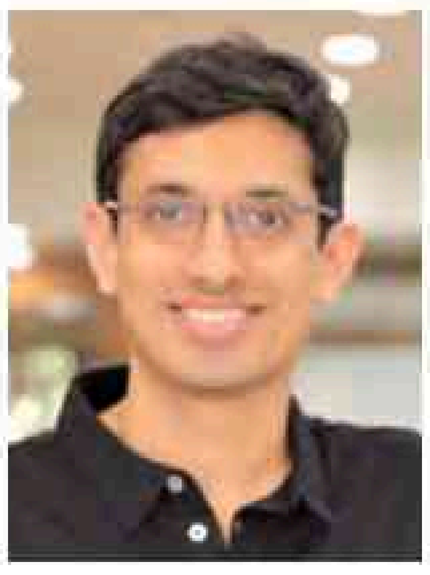
Quality and skilling

Huge gap in employability of talent is a key challenge

An important aspect that defines the development of the online education sector and its contribution to the overall GDP is Gross Enrolment Ratio (GER). Higher GER directly impacts the incremental growth of GDP. For India to become a 50 per cent GER economy by 2035 (as outlined in NEP 2020), online education needs to be encouraged as it has the potential to double the GER and move India towards that target. The education 2030 framework outlines clear priority for action to achieve the education goals globally and prominence to online learning must be given with support from government and other regulatory bodies to ensure that there is engagement, collaboration, and public private partnership to build systems that are inclusive, equitable and relevant to all learners.

Access to education for all: We have transited from physical classrooms to virtual teaching rooms and online education took centre stage recently given the environmental impact. Earlier, students were restricted with location of institutes, availability of courses in their choice of college, city, faculties, etc. for the right education they wished to pursue. With an online model, this challenge has become a huge opportunity for both students and education providers on the platform. Education is accessible to everyone who has internet connectivity – this is a phenomenal transformation and big step for the education sector. We have also shrunk distances by providing access to international universities and programmes to Indian students even during the lockdown. To become a learner's nation, it is significant to make learning accessible for all. Online education enables this change.

Quality of education While digital advancement and technology open new horizons in the mode of imparting education, there is less focus on the quality of education being provided. Currently there is a huge gap in employability of talent and the educational qualifications or skill sets. Lack of trained professors, accessibility of the right technology, relevant curriculum for rapidly transforming workforce dynamics, are factors posing a threat to learning outcomes. It is our responsibility as EdTech players in the country to innovate and work towards bridging this gap. We have given significant emphasis on bringing the best faculty onboard thus levelling the playing field for learners from remotest locations. With the benefit of online education, we are registering more industry professionals as they can now share their expertise with students from anywhere without any hassle and limitations. Project-based modules have seen a remarkable rise in enrolments from students as it gives them the exposure of real industry dynamics as opposed to classroom training. Building strong skill sets is our agenda in helping learners shape their career and provide employable talent to the nation.


MAYANK KUMAR

The author is Co-Founder & MD, upGrad

To mitigate redundancy and loss of employment, professionals and students will have to constantly look at adding or upgrading their skills, on specific intervals. This is evident when we consider roles like Data Scientists or Digital Marketers, which did not even exist a decade ago. Therefore, up-skilling and re-skilling over specific intervals will enable both freshers and working professionals to be updated with the latest skills in demand, thereby removing chances of redundancy and completing the cycle of Life Long Learning.

Affordability: Technology is at the core for advancement and evolution of any industry. EdTech players have managed to quickly change their models, mindsets and adapt to the new age trend by leveraging technology productively. Consequently, cost has been reduced remarkably. Pricing from students' perspective as well has been the key decision influencer for enrolments. This has become an affordable option for many with the variety of courses available at different price points which was not the case earlier in on-campus learning mode.

Covid-19 pandemic resulted in the loss of what is equivalent to 255 million jobs – about 4X the number lost during the recession of 2007-2009. The most affected were informal workers who lack a social safety bracket. The next two years will focus on recovering and building a model that empowers every employable individual with sustainability and work availability. As a leading player in this segment, we are making efforts to build on unlocking talent arbitrage where anyone with the right attitude, equipped with the best skills can make a difference. This will allow equal opportunities for people to achieve their full potential and in the larger scenario enable anyone and everyone to get decent work. Full and productive employment for one and all can drive progress for sustained economic growth for the country and will aid in the recovery process. A robust socio-economic framework that ensures social protection, economic response and recovery programmes for informal workers, job safety, supporting MSMEs, emerging businesses, investing in regional platforms, and guiding the fiscal stimulus is essential to build back. ◆

Road to Sustainability

Akanksha Sharma, Global ESG Head, STL, talks about innovative solutions for long-term green development leading to inclusive communities

How can we leverage technology for a sustainable world?

ESG is now, more than ever, an unquestionable priority for all the world's largest corporations. The global pandemic has impacted everything. While we are still recovering from the crisis, there is a once-in-a-lifetime opportunity to start over and create a world that we would be proud to call home. Green technology is on the rise alongside a surge in innovative digital transformation.

At STL, we have always put innovation, technology, and collective action at the heart of our Environmental, Social, and Governance (ESG) programs. Digital inclusion and tech-enablement thus form important elements of our social programs as well. Through our business, we are well poised to leverage this decade-long network creation cycle that has started, driven by 5G, FTTx, and Rural Connectivity. STL Academy has inked an MOU with NASSCOM to undertake relevant skills upgradation and mobilize 100,000 youth under the NASSCOM skill project. We have announced 5G Empower, a program that will skill one million women on 5G technology.

STL lays a lot of emphasis on women's empowerment. Would you share the best practices in this arena?

While the literacy rate in India has gone up to 75%, only 10% of girls in villages complete 10-11 years of schooling. This eventually results in a huge gender gap. To bridge this, we are running a Centre of Excellence in Velhe, Pune, catering to over 100 villages. The program centers around breaking out of a patriarchal mindset, entrepreneurship, and imparting vocational skills such as computer courses and nursing via the Maharashtra State Board of Vocational Education. There is also a backend platform where the women are mentored and hand-held through the entire course till, they reach an independent entrepreneurial stage. We have partnered with brands such as Rangsutra to engage them on a global scale. Many of these artisans are now selling their handcrafted and rural products on Amazon. Over 20,000 villagers have benefited from this program. We are now creating a handloom silk cluster in Bhandara.

STL
stl.tech
Transforming billions of lives through
digital networks
Net Zero emissions
in manufacturing facilities by 2030
100%
sustainable sourcing
Water positivity
by 2030
100%
zero waste to landfill by 2030

What steps can corporations take to combat climate change?

Despite the Paris Climate Agreement and other efforts, GHG emissions have continued to rise at a rate of over 1% per annum, exasperating the issue of global warming. Consistent policy mediation at the country and global level is required to mitigate the effects of global warming. In addition to this, corporates can explore independent and synchronized initiatives like decreasing emissions through efficiency enhancements, climatic risk assessment and mitigation measures, innovations with lower emission profiles, and so on.

As STL drives digital networks of the future, we are accelerating our efforts towards net-zero manufacturing and sustainable network-building strategies. We have conducted Life Cycle Assessments (LCAs) for ten optic fiber cable families and are looking to cover 100% of our portfolio by 2030. For example, in our Celesta cable, the use of overall plastic content is reduced while Aerial cables (ADSS) use lesser harmful thermoplastics like Aramid yarns. We have taken giant strides towards implementing environmental impact programs through zero waste to landfill diverting over 135,000 MT of waste from landfills reducing a significant amount of methane emissions, sustainable sourcing, water positivity, and much more. We will continue to invest in becoming a carbon-neutral company through various energy efficiency initiatives and other efforts.

Please tell us about the other sustainable development programs and future plans.

Our goal is to enable 5 million lives in a holistic manner by 2030. As a global technology company, we are committed to creating green and sustainable digital networks. There is an emphasis on sustainable sourcing in a big way and the goal is to have a complete green supply chain by 2030. In partnership with the World Bank's Water Resources 2030 group, we are working to build water resilient villages and explore possibilities of leveraging wastewater treatment for afforestation.

We also run a Digital Empowerment program in Pune slums of Pune to promote digital inclusion and livelihood opportunities. A major initiative to empower rural communities is the STL T-Fiber project. This digital infrastructure will give affordable and high-speed broadband connectivity to 6 million rural citizens across 3,000 Gram Panchayats in Telangana.

Through our social impact programs, STL has transformed everyday living for over 1.43 million lives. Presently, we're working in aspirational districts like Gadchiroli and Nandurbar apart from Aurangabad and Silavssa ensuring access to quality digital education for 300,000 beneficiaries and healthcare across 200+ villages, digital inclusion, social behavior change, livelihood opportunities, water resilient villages, biodiversity restoration, and green cover enhancement. ■

Quality education for everyone

Poor quality education leads to poor learning outcomes

Dr. HARIVANSH CHATURVEDI

For a country striving to improve access to quality education for everyone, India was hit most severely by the pandemic. Over 248 million students were out of schools as they shut down due to the raging pandemic. Moreover, the efforts to restore continuity of learning through online classes were only partially successful as the country grappled with inequities in the availability of the internet and smartphone devices in different regions and societies.

The pandemic uncovered and exacerbated some of India's worst vulnerabilities. For instance, education sustainability for the poor children and young people came under unusual duress as families migrated back to villages, having suffered job losses in the cities. Their primary struggle relegated to surviving malnutrition and increasing poverty. Sections of poor people who aspired to private education for their children could not afford additional costs of schooling that came from internet and smartphone expenses. The suddenness with which the pandemic struck and the pace at which it eroded essential governance and infrastructural systems have underscored the need for future responses to be more robust and systems to be more resilient.

It brings Sustainable Development Goals 2030, firmly centre stage. Ensuring access to Quality Education for everyone (SDG-4) was a salient goal, without which the Sustainable Development Agenda was practically impossible to achieve. Quality education constitutes the heart of sustainable development. It serves as a force multiplier that drives economic growth because it enhances skills amongst people, increases self-reliance, opens opportunities for better livelihoods, and empowers individuals with raised living standards.

India and SDG-4: The Indian education landscape shows several Central and state-level education schemes aimed at helping the country attain the desired educational goals.

Furthermore, NEP 2020 acts as an overarching policy providing the requisite direction in meeting various educational objectives. It emphasises equitable quality education, universal access to teaching, and lifelong learning, all of which are essential elements of the SDG-4 agenda.

While India has made significant progress in universalising primary education, marked improvement in girls' enrolment and education completion in primary and elementary school, there continue to be several significant challenges related to access, equity, efficiency, and quality of the education system.

Addressing challenges: SDGs are comprehensive in that they are broken down into targets that can render themselves to effective execution and quantitative measurement. At the same time, one of the most significant aspects of the SDGs is the extent of collaboration they emphasise. All societal actors, including the government, NGOs, private sector, and academia, need to build capacity, fund, and innovate to achieve the mission envisioned by SDG-4 and NEP, and withstand critical problems like climate change and natural disasters

Generating sustainable finance: Innovative financing and funding mechanisms have gained prominence globally. India too has witnessed an increasing appetite to generate and utilise funds that can create social value without compromising commercial logic. For example, social and development impact bonds, outcome-based financing, income-share agreements, conditional and unconditional cash transfers, and school-provider financing can plug gaps in the educational sector's long-term patient and intensive capital requirements.

Harnessing innovation: Some innovations that can meet the aspirations of quality education for all include: applied learning in schooling using concepts such as computational thinking; mobile schools to access remote areas, difficult terrains, or conflict-ridden regions; peer-led and community-led tutoring to improve learning outcomes and reduce dropout rates; peer learning and collaboration to enhance the quality of teachers and new formats allowing industry participation; emphasis on skilling in higher education; and more contemporary forms of course and credit structuring to meet the needs of the 'new normal' against the pandemic.

Integrating technology: There is a need to research and develop ways to better harness technology to aid and support achieving universal and quality education. A variety of technologies like blockchain, IoT, 5G, cloud and gamification platforms can massively impact education in the forthcoming decade. Educational institutions and teachers must be open to integrating these technologies into their education infrastructure. New technologies may allow schools and educational institutes to leapfrog traditional barriers of scale and efficiency. At the same time, support through free high-speed internet connections can be the game-changer for the pernicious educational divide in the country.

In conclusion, it is imperative to work towards quality education. Poor quality education leads to poor learning outcomes, eventually pushing children out of the education system and leaving them vulnerable to child labour, exploitation, and abuse. ◆

The author is Director, BIMTECH

Guided offline approach to learning

Technology-enabled methodologies, supplementary to classroom learning, will lower the Learning Poverty

DR. S. RANGARAJAN

Equipping students with relevant knowledge and skills has a catalytic impact on eradicating poverty, reducing social inequalities, improving health, and driving economic growth. Without access to quality and relevant education, young people cannot build the skills needed to succeed in life and work. This failure, in turn, puts all the other SDGs at risk.

One marker of the challenges of the education system is the "Learning Poverty" (LP) index, defined by the World Bank as the inability to read and understand a simple text by the age of 10. More than half of the late primary age students in India do not have this reading proficiency. This is an early warning for an incompetent work force in the future.

Covid-19 has exacerbated the education crisis and has further increased the learning gap. Online classes were particularly ineffective for first generation learners with little support at home. There was an urgent need to experiment with, prove and establish an alternative scheme to provide quality education for all, in a cost-effective manner.

A pilot at the grassroots level: Sai Krushna Vidya Mandir (SKVM) is a high school located in Hosadoddi village about 20 km south of Bengaluru. This English medium school offers free education upto grade 10 to children in nearby villages, whose parents are mostly farmers/household workers. Most of the children in the school are first generation school goers. The school proved to be an ideal testing ground for the implementation of a novel scheme called Guided Offline Approach to Learning (GOAL). Unlike online modes where the student needs net connectivity to attend live classes, the offline mode of GOAL is asynchronous, with the delivery of the learning materials decoupled from its consumption. The students can access the contents on their own schedule, without the need for net connectivity.

SKVM enlisted volunteers as Virtual Mentors (VM) for one-on-one coaching and mentoring for the students. These volunteers are spread out across the globe and sign up out of interest in mentoring the village children to enhance their school performance. It was also necessary to assess the students on a continuous basis. For this purpose, the students regularly took quizzes in the school with their tablets connected to a local Wi-Fi hotspot. A central team in the school analysed the responses and generated feedback. This scheme was able to pinpoint and address specific weaknesses of each student. Once the learning gaps were identified, they were quickly remedied by VMs. The continuous process of evaluation and feedback and the short turnaround time is the lynchpin of the scheme.

Scaling up: To scale a GOAL-like programme, regular delivery of learning materials for offline use must be ensured for all along with local guidance for the study. An always-on satellite link can deliver the digital contents, including notes, just-in-time tips, and quizzes for assessment of learning. A GEO satellite-linked hotspot is quicker to establish, provides lower network congestion and fewer distractions compared to a web link. A local hotspot can provide the best content and methods to all without any geographical barrier. Proven technology exists to provide this link by riding on an existing satellite transponder and receiving the spread spectrum signal 24x7 without even a dish antenna. For such a system the satellite receiver is so small that it can be housed inside a user tablet. This enables the student to have curated content on one's personal device to be accessed anytime.

For guidance, one could employ and train facilitators as teaching assistants. This is superior to possibilities of machine learning to create Virtual AI tutors, as real mentors build lifelong relationships with the students, which also holds them accountable.

Looking ahead: The satellite-linked hotspot in every school and every community would allow caching of the learning materials for targeted transfer to student and teacher devices. For the early age learners, a satellite-linked tablet personal to them would help realise the objectives of NEP2020 to provide a flexible, multilevel, play/activity-based distraction-free learning. These technology-enabled methodologies, supplementary to classroom learning, will lower the Learning Poverty. Once they learn to read, they can read to learn.

With the recent opening of the space sector in India, the stage is set for private industry to provide these space-based services by setting up hotspots in every village. This is an extension of the concept of Village Resource Centres (VRC) that ISRO has already proven on ground. VRCs would also generate employment for local youth, as potential teacher assistants. A satellite-linked VRC supports fulfillment of several other SDGs, like Health, Agriculture, Reduced Inequalities, Sustainable Communities and Partnerships. Corporates and NGOs could help establish and train the optimal use of such an infrastructure, benefitting different stakeholders.

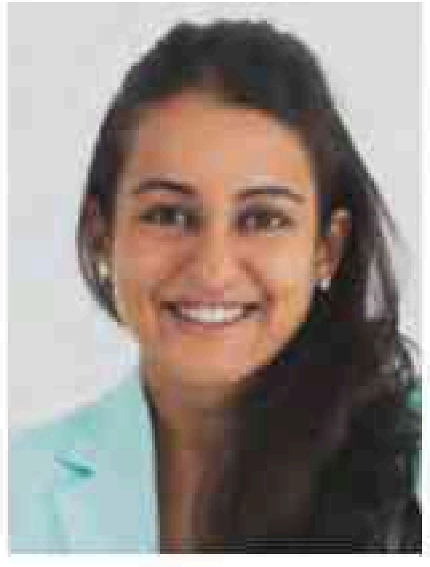
When children do not have access to clean water and nutrition, they are physically stunted. Without access to quality education, the brain gets stunted. Similar to the Poshan Abhiyaan to improve nutrition, a national mission is needed to lay the foundation for quality education. This can be done by scaling up the GOAL concept with satellite-linked devices. ◆

The author is former Director, Indian Space Research Organisation

Making meaningful change

Progressive education for a future-ready workforce

"If we teach today's students as we taught yesterday's, we rob them of tomorrow." Although world-renowned educational reformist, John Dewey, made this statement almost a century back, it has stayed relevant to this day. An educational system that equips our children to thrive and flourish in tomorrow's world remains a distant dream for India.


TANVI JINDAL SHETE

For most part, our education system is largely dedicated to knowledge assimilation and driven towards scoring high marks in exams. While the focus of our early, primary and higher educational system is largely academic, it freezes out the significance of skill-building to a few technical courses imparted through technical institutes. It is an unfortunate reality that our children are prepared and encouraged to gain subject expertise at the cost of holistic development. The current education system also does not equip children with the know-how of where or how to apply it. Thus, it is imperative that we focus on how we teach as a reflection of how our children learn and apply their knowledge and skills in the world they will operate in.

Today, the world is changing rapidly. It's connected, adapting and ever-evolving. It is crucial that our approach to teaching focuses on learnings that will equip our future generation to deal with the opportunities and challenges they are likely to face. According to the PISA report, children in most Indian schools are not at par with the foundational skills of literacy and numeracy, let alone the 'extra-curricular' knowledge and skills necessary for their all-round development. The reasons are directly linked to the current gaps in innovative and new-age teaching methods, high pressure to complete one's annual study content and underdeveloped educational infrastructure with an inflexible teaching framework.

Progressive measures are necessary for both students and teachers. It is critical that our teachers feel motivated and are made to understand how learning can be fun and engaging. The focus needs to shift from delivering syllabus content to the practical application of that content in the real world. Another important aspect that impedes meaningful learning in children is the lack of acknowledgement of a child's individuality – their likes, dislikes, strengths, aspirations. A 'one formula for all' approach is bound to fail in making our children future-ready.

In order to overcome these problems, we need a revolutionary change in the art and science of teaching. It is important that our campuses encourage 'student-led learning' versus 'teacher-led learning' in order to create socially-empowered young leaders who can voice their ideas freely while advocating for themselves and others to solve the issues that impact the world at large. For this, our education system needs to become more flexible and less didactic. It must encourage inquiry-based learning and skills such as critical thinking, problem-solving, communication and collaboration, for these are the tools that our children will need to build their collective future.

So how do we do all of this?: The National Education Policy (NEP) is a step in the right direction. It aims at a major overhaul in our legacy education system through vital reforms. Inspired by the UN SDG-4 to 'ensure inclusive and equitable quality education for all' NEP promotes a participatory, holistic and inclusive approach in education. It takes into account the fast-changing knowledge landscape as technological and scientific advances meet global concerns such as climate change, overpopulation, pollution and depleting natural resources. NEP has acknowledged that these problems require a workforce equipped with the know-how, consciousness, and zeal to develop innovative solutions. Thus, our education system must be geared towards creating such a workforce.

> **Quality education is a human right and public good. It enables people to develop all of their attributes and skills to achieve their potential as human beings and contributing members of society**

While NEP certainly shows a lot of promise, there is a need, at our schools, for an integrated approach between traditional curricula and the life-skills learning agenda. The NEP could evolve into an actionable toolkit to develop an integrated approach across the education continuum.

Quality education is a human right and public good. It enables people to develop all of their attributes and skills to achieve their potential as human beings and contributing members of society. As Ron Lewis said: "Ensuring quality education is one of the most important things we can do for our future generations." When viewed from this lens, it becomes an engine for creating meaningful change in the world. ◆

The author is Managing Trustee of Jindal Educational Trust and Founder of Museum of Solutions

रेल विकास निगम लिमिटेड
Rail Vikas Nigam Limited
गुणवत्ता, गति एवं पारदर्शिता
(A Government of India Enterprise)

Azadi Ka Amrit Mahotsav

RAIL VIKAS NIGAM LIMITED

Government's Special Arm for Transportation Infrastructure Development

> "As part of our business mandate, RVNL has to its credit the delivery of challenging projects in far-flung and inhospitable terrain but are nevertheless socially desirable projects spurring mobility and opportunities. In keeping with this objective for inclusive development, our Corporate Social Responsibility policy & programs are also aligned to national developmental goals & 3Ps envisaged for a stronger ecosystem." – **Pradeep Gaur, Chairman & Managing Director, RVNL**

A steady commitment towards public good through transformative CSR Projects

ABOUT RVNL AND ITS MANDATE

Rail Vikas Nigam Limited (NSE: RVNL, BSE: 542649) is a Category-I Miniratna CPSE under the Ministry of Railways. It was incorporated in 2003 to meet the infrastructure deficit in the country and for implementation of projects on a fast-track basis. RVNL works as the executing arm of the Ministry of Railways for construction and transportation infrastructure development.

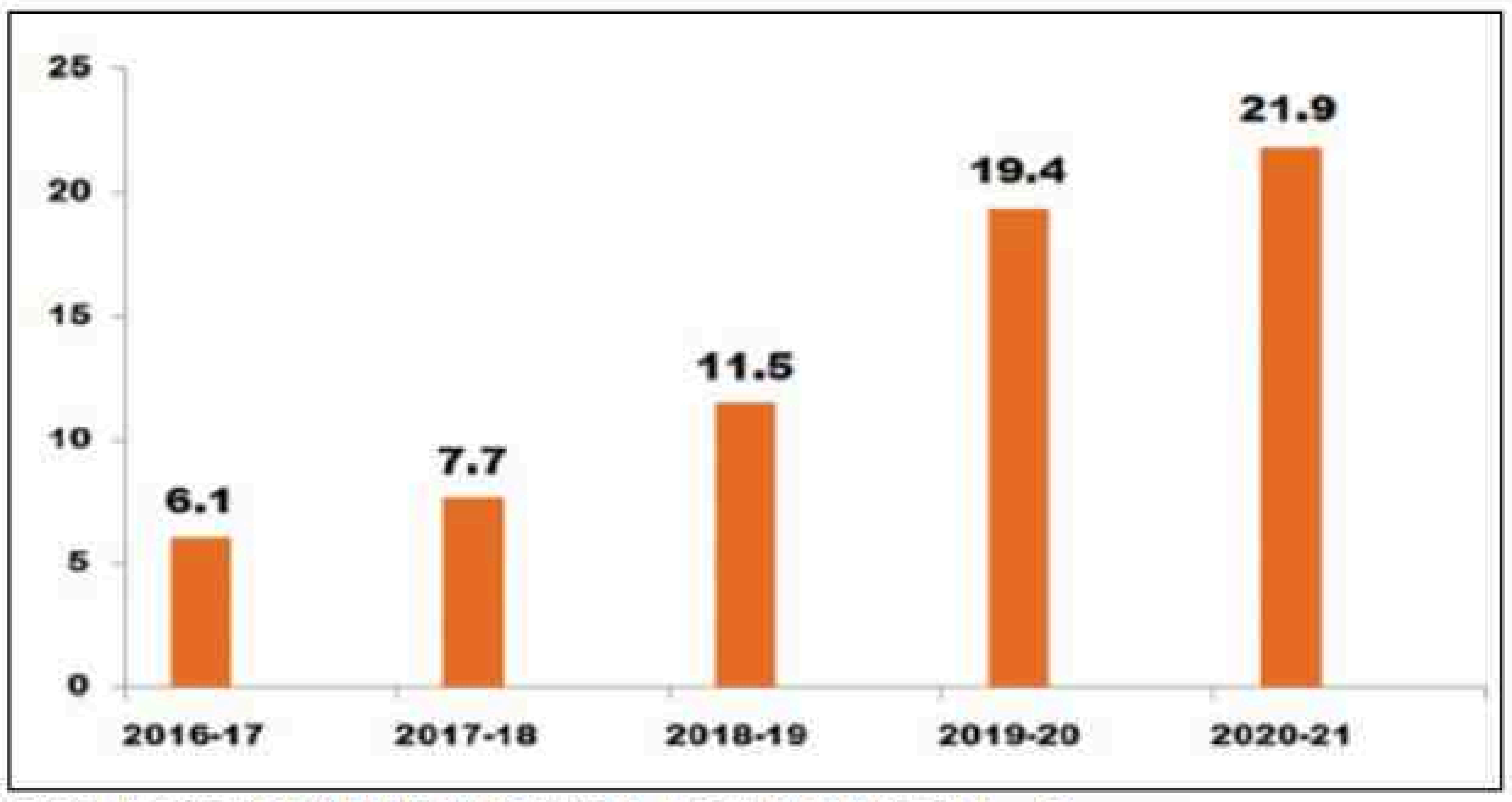
The organization undertakes project execution from concept to commissioning and creates project specific SPVs for raising EBRs. RVNL's mandate also includes mobilization of extra budgetary resources (EBRs) through a mix of equity and debts from banks, financial institutions, and multilateral agencies like Asian Development Bank (ADB).

CSR FOOTPRINTS

Corporate Social Responsibility is a part of the ethos of Rail Vikas Nigam Limited. Aligning its goals to CSR objectives', RVNL has implemented projects in the thematic areas of Health and Education. The geographic focus of RVNL CSR has been West Bengal, Chhattisgarh, Jharkhand, Uttar Pradesh, Madhya Pradesh, Uttarakhand and Odisha. About 60 per cent of CSR funds are spent in the education & health care sector for the underprivileged, marginalized communities and tribal belts

OPERATIONAL MODEL ON CSR

- CSR Committee of the Board reviews and sanctions CSR project proposals for implementation.
- Co-opting services of NGOs/ specialized external agencies, who have necessary capability, expertise and established track record in undertaking CSR projects apart from involvement of the field level committees (PIU) for close monitoring, evaluation and feedback.
- In FY2020-21, the Company spent Rs.21.86 crore on CSR initiatives. Rs. 15 crore was contributed to PM CARES Fund for Covid19 and Rs. 5 crores in FY 2019-20



CSR EXPENDITURE OVER LAST 5 YEARS in Crores

TOWARDS MEANINGFUL COMMUNITY PARTICIPATION:

The Right Infrastructure for Right Education

- Education support to 400 underprivileged children and health support in the backward District of South 24 Parganas.
- Educational and Health support to 100 differently-abled children in the backward District of South 24 Parganas.
- Hostel facility for 300 tribal boys in the Aspirational district of Narainpur in the state of Chhattisgarh.
- Hostel facility for 120 Girls nursing students at R.K.Mission charitable hospital, Vridanban.
- A new hostel for 120 tribal and underprivileged boys at Ramkrishna Vivekanand Mission School was inaugurated by the Hon'ble Governor of Jharkhand Smt. Draupadi Murmu on 28.2.2021 at Sakshi, Jamshedpur in the Aspirational district of Purvi Singhbhum(Jharkhand).
- Hostel facility for 50 tribal Girls each in Kundla and Akabeda in the Aspirational District of Narainpur (Chhattisgarh)
- Construction of Girls hostel at Kutul in the Aspirational District of Narainpur (Chhattisgarh).

Unlocking Socio-Economic Value through Infrastructure Development Projects

Endeavoring for Inclusive Development through CSR initiatives

Plough-back of profits to re-activate economy through Special Purpose Vehicles

Community Health initiatives through Sanitation and Clean Drinking water:

- Community Toilet Blocks Under Namami Gange and Swachh Bharat Mission: RVNL has worked for the CSR project of providing community toilet blocks in District Ghazipur in the state of Uttar Pradesh under "Namami Gange and Swachh Bharat" mission along with Sulabh International Social Service Organization.

- Toilet blocks under the Swachch Bharat Mission were also provided at Belur Math, Narendrapur, Gwalior, Narayanpur, Kanpur, Haridwar, Bhopal, Mathura, Yeshwantpur, Naimisaranya(Sitapur), Vrindavan, Poddutur, and Renigunta.
- Setting up E-Pio Drinking water RO/UF system 500 litre/hour capacity on Char Dham routes in 10 different locations.

Hospitals and Health care

- A 50-bedded Ward for TB Patients for the healthcare of tribal and economically weaker sections at Ramakrishna Mission TB Sanatorium Ranchi, (Jharkhand) was inaugurated by Hon'ble Governor of Jharkhand Smt Draupadi Murmu. on 27th February 2021.
- Providing Medical beds and solar lights for abandoned senior citizens at Bandhwari village, Gurgaon (Haryana).
- Health facility for female and child-care ward known as "Sarada Block" which was inaugurated by Hon'ble. President of India Shri. Ram Nath Kovind on 28.11.2019 in the presence of Hon'ble Governor and Hon'ble Chief Minister of Uttar Pradesh.

CMD, RVNL receiving the National CSR Award 2018 for National Priority Under Women and Child Development by Ministry of Corporate Affairs at Vigyan Bhavan, New Delhi

MILESTONES IN THE DIRECTION OF CORPORATE SOCIAL RESPONSIBILITY

- CSR Policy of RVNL issued in October 2014 and revised in August 2021 under the framework of Section 135 of Companies Act, 2013 and the Companies (CSR Policy) Amendment Rules, 2021.
- CSR Committee constituted and formulates the framework. The Two-Tier Framework Includes CSR Committee of the Board and CSR Committee Project Implementation Units Level
- Stipulations & clear CSR provisions for monitoring of programs & for all disclosures
- Publishing of updated CSR information viz. CSR committee, Policy CSR projects on the website of the company: https://rvnl.org/csr
- Aligning CSR with the national development priorities and responding proactively to the announcement in 2018 by Hon. Prime Minister of India Shri Narendra Modi to focus on the districts included in the 'Transformation of Aspirational Districts Programme' (TADP).
- CSR Projects are implemented on project/ program mode. Inclusive growth of society with emphasis on development of weaker sections of society and in the Aspirational Districts of the country
- Focus on periphery of project areas of RVNL
- MoU with Tata Institute of Social Sciences in 2017. Impact Assessment and Midterm evaluation of CSR activities by NCSR Hub (TISS) valid up to FY 2020-21.
- RVNL's Strategic partners are Ramakrishna Mission, TERI, Sulabh-International and the NGO's specialized in the field of education and health.
- **Till date RVNL has spent Rs. 97.7 crore on CSR Projects.**

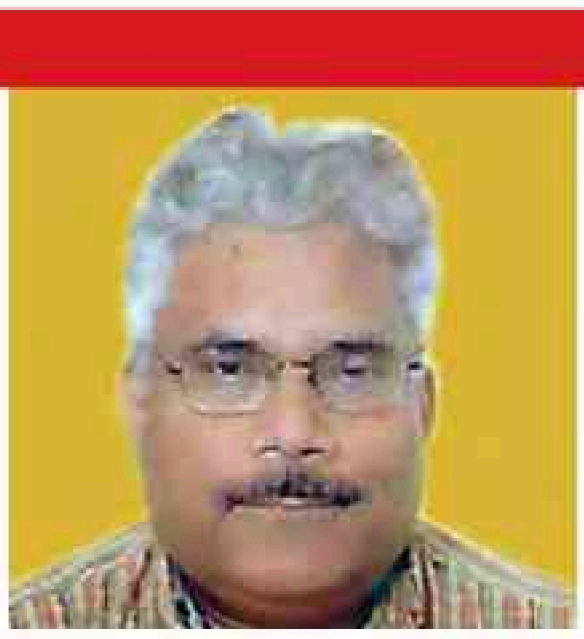
- Providing Medical facility Cardiac Cath Lab at Ramakrishna Mission Sevashrama Charitable Hospital, Vrindaban in the District of Mathura (Uttar Pradesh)

Ongoing Projects in the Aspirational districts

- School Building Facility for 1200 Students at R.K.Mission, Jamshedpur in the Aspirational District of Purbi Singhbhum (Jharkhand).
- Health facility (OPD building) for tribal and under-privileged people in the Aspirational District of Ranchi(Jharkand).
- Girls hostel at Irrakbhatti and Kanchappal in the Aspirational District of Narainpur (Chhattisgarh).

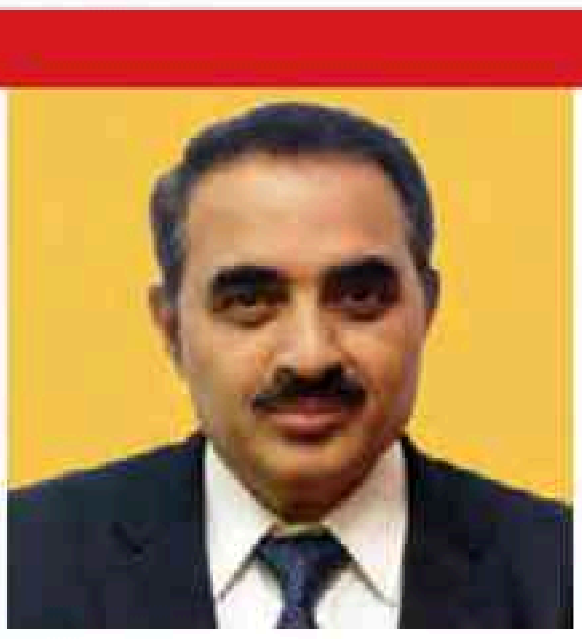
BOARD OF DIRECTORS

PRADEEP GAUR
Chairman & Managing Director



AJAY KUMAR
Director (Personnel)

VINAY SINGH
Director (Projects)



RAJESH PRASAD
Director (Operations)

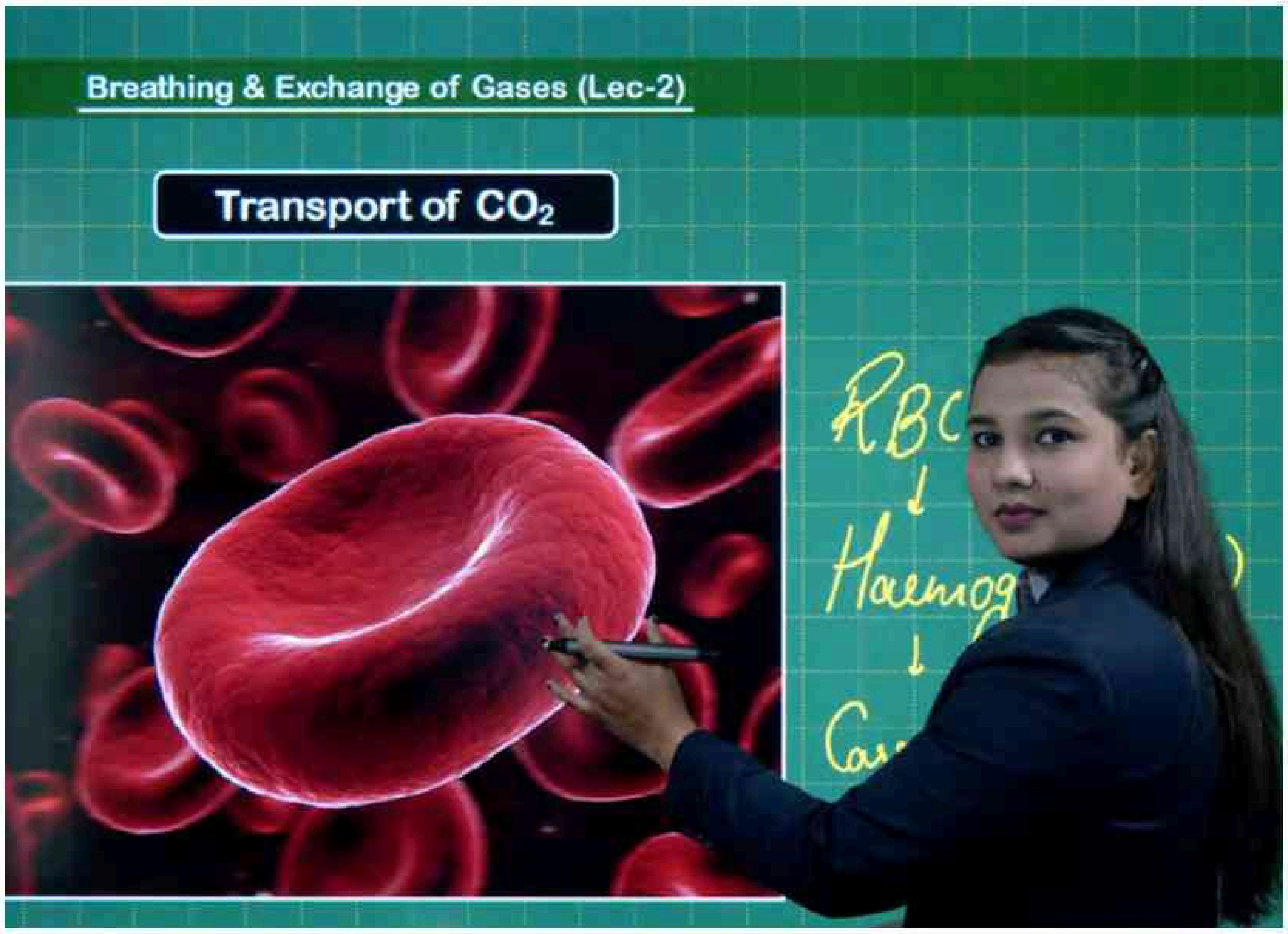
SANJEEB KUMAR
Director (Finance)

Challenges and hopes

Providing quality and equitable education to all has been one of the biggest challenges for India

BHARTI AIRTEL

Classrooms go live


Breathing & Exchange of Gases (Lec-2)
Transport of CO_2
RBC
Haemog

View and learn: Airtel's service helps students prepare for competitive exams

Bharti Airtel Limited (Airtel), one of the largest homegrown consumer brands to have emerged out of India, has grown to become a global communications solutions provider over the last 25 years, with over 471 million customers in 18 countries across South Asia and Africa. Airtel connects with millions to transform their lives for the better through multiple services offered across its four business segments – mobile, home, digital TV and Airtel business services.

Airtel believes in growing together with the nation and society. Strengthening the education system is an essential investment for India's future and Airtel has made efforts to contribute towards it. Increasing awareness for girl education and education in rural areas are key points being promoted by Bharti Airtel in collaboration with education partners.

The new age India is committed to ensure that each child gets the opportunity they aspire for.

Children of upper primary, secondary, and senior secondary school (Class VI to XII) need access to affordable quality education. Also, children aspiring for higher studies like medical/engineering need to prepare for highly competitive entrance examinations, for which they need access to technical education.

It was observed that children were deprived of these due to constraints like: financial problems (inability to pay for the cost of education); accessibility issues (education being not available in a village, district or city); lack of Internet access (students in small towns and villages having limited or no access to Internet); distance/timing issues (children not able to travel long distances due to lack of adequate infrastructure or timings being not suitable, considering safety threats of travelling at odd hours, etc. This was a bigger problem for female children).

Identifying right partners Airtel did a complete research to identify the right segment and identified right partners to drive this project. It used its technology to record the lectures and telecast it around the country with DTH connectivity. It gathered the right set of information and launched this service in India.

Airtel collaborated with leading institutes such as Vedantu and Aakash Edu TV, which impart quality education for such aspirants. Using its DTH (Direct to Home) platform, the company telecast education content via a dedicated channel, which enables students across India to access it using their Airtel set-top-box. They can view and learn live. This service covers Live telecast of classes along with real time doubt resolutions over 'WhatsApp'.

Initially, parents are rigid in terms of online coaching and TV viewing hours. But Airtel helped them understand the advantages of this service to overcome this challenge.

Within a short time of launching this service, the company achieved a subscriber base of 41,000, of those who actively pursue this service.

Airtel's DTH platform is subscribed by 17.72 million users and, with greater awareness of these initiatives, the tally of active subscribers for this facility is likely to grow significantly.

Vedantu enables students to learn Live with some of India's best-curated teachers. Its USP is its quality of teachers – about 500 of them, who have taught more than 1 million hours to 40,000+ students spread across 1,000+ cities from 30+ countries. Vedantu is founded by IITians, with over 13 years of teaching experience and having taught over 10,000 students.

Aakash Educational Services aims to help students in their quest to achieve academic success. It has a centralised in-house process for curriculum and content development and faculty training and monitoring, led by its National Academic Team.

Airtel plans to contribute towards CSR through the constant support to Bharti Foundation, the group's philanthropic arm, which brings quality education to underprivileged children in rural India, through Satya Bharti Schools. Over the years, the Foundation has positively impacted the lives of over 450,000 students across 18 states of India. Despite the pandemic, Bharti Foundation has ensured that majority of these children are not deprived of learning opportunities. It has made classes accessible for them through digital channels. These initiatives are undertaken in collaboration with other organisations and the government. ◆

TATA MOTORS

ENABLE-ing them to succeed

ENABLE-JEE NEET coaching at a Jawahar Navodya Vidyalaya

Tata Motors' Engineering and NEET Admission Bridge Accelerated Learning Engagement initiative (ENABLE) is an e-enabled remote learning programme that grooms students of class 11 and 12 from 477 Jawahar Navodaya Vidyalayas (JNVs) across the country to take the JEE and NEET competitive exams. JNVs are co-educational free residential government schools for talented students from rural India, and are among the highest ranking CBSE schools in the country. Its central governing committee, the Navodaya Samiti (NVS) has successfully nurtured academic aspirations among JNV students by ensuring 100 per cent of their students clear CBSE board exams. However, training JNV students for leading professional arenas was a major challenge because private coaching for medical entrance tests and IIT JEE was largely unaffordable to them given their limited means. Understanding this, Tata Motors joined hands with NVS to provide JEE/NEET coaching to all JNVs across India through the virtual mode.

Blended learning model This coaching programme, conducted in partnership with an NGO called Avanti Fellows, was first implemented in Puducherry, and later replicated in Mangalore and Palghar. Eventually, a blended learning model was devised for inhouse advanced coaching of meritorious students from 50+ JNVs in Kolhapur and Rajgir. This coaching was conducted during winter and summer vacations with a rigorous doubt solving sessions for the rest of the year. It was from 2021 that this programme evolved into a remote learning model, and has spread in 477 JNVs across 26 states and 8 UTs, designed to touch the most underserved students. TML displayed agility to respond to the lockdown and school closure and went digital within a month for this coaching programme. The lockdown was taken as an opportunity to scale and reach out to more schools and students with the help of NVS.

ENABLE is being implemented by TML with shared assistance from the government Navodaya Vidyalaya Samiti, and other knowledge partners, Avanti Fellows and ex-Navodayan Foundation (ENF). During Covid and for the at-home learning phase, classes were broadcast to students' mobile phones at their homes with homework and weekly testing. Post-Covid during the in-school learning phase, classes were conducted and broadcast live through YouTube by master teachers. To ensure participation and provide directed guidance, students were also reached out individually. The infrastructural requirements to run online classes were taken care of by the schools and NVS, whereas the live classes were conducted by Avanti, along with weekly tests and reports. Currently, 24,000 students are undergoing training in this programme.

In the last financial year, among the students to have undergone JEE/NEET coaching in this programme, 57 per cent qualified JEE Mains, out of which 63 per cent cleared JEE Advanced. Seventy per cent of the students who have qualified for JEE Advanced got into IITs, with the others qualifying for NIITs and other engineering institutes. "Getting selected for the training programme offered by Avanti and Tata Motors has been a gamechanger in my life," said Mohammad Ali, a meritorious student from Kargil who enrolled himself in the programme and secured a glorious 333 rank in the ST category in the IIT JEE entrance in 2020. As much as 18 per cent of the students supported by Tata Motors make it to a prestigious institute (as against a national average of 2 per cent).

Through its latest studio learning online model, Tata Motors aims to coach 1 lakh students for JEE and NEET entrances by 2025, and enrol 30,000 of them into institutes of higher learning. It hopes to continue reaping promising results, creating positive value in the community and cultivating a culture of equitable education. ◆

HDFC BANK

Changing the course of education

स्मार्ट क्लास
HDFC BANK
PARIVARTAN

Smart schools, smart learning: HDFC Bank's initiatives improve the quality of education

The quality of education in India varies across the country. There are more than 1.5 million schools, 8.5 million teachers and 250 million children, India's education sector is the second largest in the world after China, informs UNICEF. This body of students and teachers hail from diverse socio-economic, cultural, linguistic and regional backgrounds and, so, providing quality and equitable education to all has been one of the biggest challenges for the country.

HDFC Bank recognises education as the most significant intervention in the overall economic and social development of society. Therefore, promotion of education has been one of the five focus areas under the bank's social initiative, 'Parivartan'. HDFC Bank spent Rs634.91 crore towards CSR in 2020-21, which benefitted over 20.8 million students and 1.97 million+ teachers. Additionally, it has supported 278,000+ schools and built 630+ libraries.

Indian education has some unique challenges – like increasing the cost of education, lack of mass quality infrastructure and slow pace of evolution in developing pedagogy. HDFC Bank's Parivartan has focussed on teacher training, scholarships, career guidance and infrastructure support.

Zero-Investment Innovations for Education Initiatives (ZIIEI), a pioneering initiative powered by the 'Teaching the Teachers' (3T) programme has revamped the education system in India by encouraging teachers working at the grassroots, to constantly innovate and rebuild the pedagogy. The mass outreach programme has been a first in the country that facilitated creativity and innovation from the remotest locations with the principles of zero-investment and equity. Highlights of ZIIEI (September 2021) include orientation of 1.97+ million teachers; submission of 1.19+ million ideas; and 258,000+ ideas of schools implemented, covering 26 states and five Union Territories. The best of the ideas from around the country were selected after detailed evaluation and compiled into an innovation handbook (state-wise) named Navachar Pustika. The book was distributed to several schools in the state for ground level implementation, thus, improving the learning methods for students.

HDFC Bank endeavours to convert/develop 2,500 traditional government schools into Smart Schools by 2025, as part of its contribution towards improving the quality of education and learning experience in India. The objective of a Smart School is to bring the learning experience in government schools on a par with those in the urban locations with adequate resources and technology.

Smart teaching-learning methods

The bank has entered into alliances with expert organisations to create and distribute high-quality learning resources available in regional languages to equip students with better foundational understanding of mathematics and improve their learning outcomes. These interventions aim to integrate smart teaching learning methods, localisation of math content and teacher training to integrate self-paced learning and student learning level improvement.

The bank, annually awards an Educational Crisis Support Scholarship (ECSS) to meritorious students from the underprivileged background. With the pandemic wrecking havoc, the bank has proactively intervened to rescue students on the verge of dropping out and launched an additional scholarship programme called Covid Crisis Support Scholarship. Under the annual ECSS, the bank is supporting 3,000 students. While the Covid Crisis Support Scholarship is extending support to nearly 3,200 students. Further, the bank is planning to extend the Covid crisis scholarship to an additional 900, taking the tally of overall scholarship support to over 7,100 students. The one-time scholarship ranges from ₹15,000 to ₹75,000 to help students at the time of personal crisis and avoid dropping out.

One of the basic criteria for students to qualify is to have an annual family income less than ₹6 lakh per annum. Additionally, they should be pursuing studies in Indian boards and universities. The scholarship programme is managed by Buddy4Study India Foundation which hosts one of the largest scholarship platforms in India.

The bank runs Foundational Literacy and Numeracy (FLN) programmes in five states – Assam, Punjab, Telangana, Odisha and Tamil Nadu – with the help of Central Square Foundation. Both partners closely support state governments in implementing FLN programmes, borrowing heavily from the guidelines suggested by the Ministry of Education, while launching NIPUN Bharat – the national mission on FLN. The programmes address the learning gap at a crucial juncture during the pandemic. The project focuses on achieving improved student learning outcomes through multiple pathways including goal-setting, teacher capacity building, and development of teaching. This is expected to play a significant role in ensuring that all children attain foundational skills by Grade 3 which will make teaching more inclusive and meaningful for children as they progress to higher grades. ◆

LENOVO

Smart learning program

AGASTYA
INTERNATIONAL FOUNDATION
Lenovo
motorola
AREA OF A RHOMBUS
PYTHAGORAS THEOREM
AREA OF THE TRAPEZIUM
(a + b)²

Lenovo-Agastya Science Centre

Lenovo's holistic approach in collaborating with grassroots organisations and leveraging its cutting-edge technology expertise in supporting quality education for students encompasses capacity building and training of teachers as well as developing STEM mindsets in students. Lenovo's EdTech Classroom Intervention with the Meghshala Teacher Enablement Program and partnership with Agastya International Foundation are supportive of providing inclusive, core educational inputs aimed at developing learners' talents.

India faces a multitude of educational challenges, including ineffective curriculums and a disconnect with ground reality. There are more than 100 million children enrolled in schools at the primary level in India. With such large numbers, the quality of teaching and outcomes are not of a uniform high level. Improving the quality of teaching and learning at every level of a student's life is therefore of paramount importance.

Echoing Lenovo's vision, Smarter Technology for All, these projects are intended to be technology-focused, minimising wastage and drop-out rates in poverty-stricken areas.

Starting off with an experiential hands-on learning session that thereby propagates STEM mindsets in students in their formative ages, Lenovo and Agastya Foundation's Mobile Education Programme supports 10,000+ underprivileged students across India.

The project employs a new initiative, 'Lab-On-a-Tab,' that makes education more interactive and effective in government schools, aims to provide self-paced, high-quality hands-on education to supplement the existing teaching and learning methods. This will be implemented by using technology support from Lenovo to convert physical experiments into e-experiments for the children. Initially, students and teachers of government schools were provided with Lenovo A-1000 tablets which were pre-loaded with applications designed by Agastya Foundation and C-DAC, to enable the teacher to engage the students through interactive learning.

Lenovo also supports three iMobile Labs. In this programme, local community youth are trained to be teachers on the iMobile Vans, thus creating an economic opportunity within the community. The iMobile Labs reach out to rural communities on the outskirts of Gurgaon, Bengaluru and in the slums in Mumbai.

Lenovo-Agastya Science Centre

These programmes run in Haryana, Karnataka and Maharashtra, providing hands-on education to the underserved students and teachers have garnered a total of 106,000+ exposures to date. The programme seeks to transform and stimulate the thinking of economically disadvantaged children in schools where access to the Internet and technology is limited. One of the top highlights also includes the new learning pedagogy of Explore, Play and Learn sessions promoting self-learning, questioning capabilities, and self-exploring capacities of students using digital content.

The second initiative is that of promoting the use of technology for teachers' capacity building with access to quality education through digitised and vernacular content through the Lenovo Meghshala Teacher

A walk of the future

Hindustan Zinc's Sewage Treatment Plant at Udaipur

The journey of becoming 5 times water positive by 2025

For many in the country, a master-planned community, a network of optimized consumption, a robust educational offering to residents that ensures behavior is in sync with the technology available, and a recycling system that can bring the equation closer to neutral through the use of recycled water for various household and irrigation purposes - is a dream come true.

Farmers are visibly excited to survey their farms where they have planted an array of crops, have replaced the days of visualizing a farmer staring up at the clouds waiting for rain. They will be harvesting in a few months, and their efforts will be rewarded because they invested in water conservation projects. For a large section of the farmers, there has been no turning back since the adoption of schemes such as water harvesting - rainfall, stormwater, recycled wastewater and river rejuvenation.

Understanding the importance of water conservation and integrating green technologies, Hindustan Zinc, one of India's largest and the world's 2nd largest zinc-lead-silver producers, has launched a project to artificially recharge groundwater. The project has been undertaken at four blocks of Bhilwara district, viz. Hurda, Shahpura, Kotri, and Jahazpur and has resulted in the construction of 84 village ponds as well as 358 recharge structures. To increase water storage, the project included desilting, embankment strengthening, and drilling and construction of a recharge shaft.

Community Centric initiatives have made Hindustan Zinc a progressively water-positive company

Being 2.41 times positive and striving to become 5 times positive by 2025, the company has used a multi-pronged approach to manage water resources. They are concentrating on reducing water consumption in their operations by expanding the usage of recycled water and developing rainfall collection systems to replenish groundwater supplies that they share with the community.

Where does HZL stand?

Hindustan Zinc lays great emphasis on conservation, sustainability of water resources and sustainable water management practices. The company is at the forefront of developing sustainable solutions for water conservation.

Hindustan Zinc maintains zero-discharge and water-positive philosophy at all its operating locations and thus contribute to tackling the increasing global concern of water scarcity. The company also focuses on reducing, reusing, and recycling methods to reduce its water footprint and minimize the amount of freshwater consumed. Hindustan Zinc also works with local communities to improve water conservation and water management.

Over the years, the organization has been consistently working towards the sustainable development goal of making clean water accessible. It is committed to the UN Global Compact Water

Hindustan Zinc's water recharge structure at Agucha, Bhilwara

Hindustan Zinc RO Zero Liquid Discharge Plant (ZLD) at Debari, Udaipur

Action Platform (CEO Water Mandate), a commitment to adopt and implement the mandate's strategic framework and its six core elements for water management.

Results from sustained efforts

Hindustan Zinc has a robust system that monitors its water conservation initiatives. Till now, the company has set up 37 water ATMs and 12 RO plants through which pure water is supplied to 7,000+ families in 49 villages.

Recent rainwater harvesting project near Rampura Agucha mine has created an estimated recharge potential of 8.7 Million Cubic Meters per annum of water reserves. This is expected to augment groundwater in the area, resulting in water availability for various purposes as well as for the secured livelihood of the villagers. The initiative is estimated to benefit 70,000 – 75,000 people living in this area. As a result of the project, crop patterns and yields will also increase.

Hindustan Zinc had also successfully commissioned a 3,000 kilo-litre per day (KLD) zero liquid discharge RO-ZLD plant at its Debari smelter. This plant is a commitment to the group's ethos of 'Zero Harm – Zero Waste – Zero Discharge'. The company is constantly making efforts to develop sustainable social solutions for a greener future and thus strengthening Zero Discharge. Mechanized vapor recompression is an effective technology for water recycling adopted by Debari smelter.

The RO-ZLD plant recycles processed water, which is then reused in operations, thereby completely utilizing the wastewater, strengthening zero discharge and reducing overall dependency on fresh water.. The salt generated from this process can also be reused further in various plant processes.

Water is not a resource that can be created in a lab for consumption. Conservation, effective water treatment, and optimal utilization are the only ways to extend its supply. Increasing accessibility in a cost-effective manner will increase people's awareness of consumption. A value must be assigned to water in order for it to be valued. The continuous steps taken by the Central and State Governments are supported and augmented by all corporates like Hindustan Zinc in every way for the foreseeable future, as together the private and public sectors both can resolve this challenge with policy and technology-led initiatives.

Enablement Program.

The philosophy underlines Lenovo's mission to empower a diverse, underserved and underprivileged populace by increasing access to Science, Technology, Engineering/English and Mathematics education. The adoption of the locations chosen to implement our programs also underlines the mission. For example, the East Garo and West Khasi Hills district in Meghalaya have low intervention in education in India as its geography and terrain pose a big challenge to development while the Yadgir district of Karnataka is one of the aspirational districts identified for education by NITI Aayog. This district lacks drinking water, toilets, drainage, transportation, and educational facilities.

In 2020, with Covid-19 causing a crisis of an unprecedented scale, schools shut down and almost overnight education went online. Teachers in the North East state of Meghalaya struggled to reconnect with their students. The Lenovo Meghshala Teacher Enablement Program was introduced in Meghalaya during the Covid lockdown. Teachers used Meghshala lessons on their phones to teach effectively, and the programme was monitored by field associates to provide the necessary support to teachers. Volunteer teachers recorded lessons in their local language to teach their students and minimise learning loss. There are short professional development modules for teachers, e-lessons by teachers for students' use, and science experiments and math learning content available on the Meghshala YouTube channel.

Today offline capabilities have been integrated within the app to help teachers teach in the absence of internet connectivity. The app also allows for collecting granular data for analysis, helping understand the usage patterns and trends. This use of simple yet modern technology enables working with local community-based organisations and helps overcome connectivity challenges to a large extent. Since social distancing and lockdown measures began in response to Covid-19, Meghshala has seen more than 18,000 app downloads.

Lenovo's partnership with Agastya's learning pedagogy on experiential learning and critical learning underlines the National Education Policy of India 2020's (NEP 2020) focus as well. Lenovo's belief in smarter technology for all is the driving force behind this collaboration which helps bridge the digital divide by providing access to quality education through the iMobile Vans and Lab on Tab. The Mobile outreach programmes that Lenovo supports fall under the Samagra Shiksha initiative of the government of India. ◆

VODAFONE INDIA

Connected learning

Vodafone India Foundation enables inclusive and holistic learning

In 2015, the United Nations' member states adopted a programme: 'Ensuring inclusive and equitable quality education to promote life-long learning opportunities for all' as the Sustainable Development Goal (SDG) for Quality Education. Recently, the UN has also launched a rallying call to gather momentum on the SDGs, calling this the decade for action.

Covid-19, however, has upended a lot of the progress that was made over years of work on educational inclusion and literacy. The two years plus of intermittent lockdowns have forced schools to transform to online learning, but only a few had resources to make their children attend classes from home. Additionally, the pandemic impacted job and livelihood, with more children being pulled out of schools. But, remote learning remains out of reach for at least 500 million students globally.

Learning through activity The Vodafone India Foundation has aligned its CSR initiatives with the UN agenda for Quality Education through its 'Connected Learning' initiatives. Be it through educating the educators, building model schools for students, enabling inclusive and holistic learning or bolstering merit with financial means, the interventions focus on technology, as well as people.

Given the foundational role played by teachers in shaping future generations, Jigyasa – Vodafone Foundation's flagship programme in education – focuses on alleviating some of the teachers' most pressing concerns. The programme connects with more than 50,000 teachers in Chhattisgarh, Madhya Pradesh, Rajasthan, Uttar Pradesh and Uttarakhand, training them in digital teaching methodology and providing them with curated content resources, in line with the syllabus. This initiative has benefitted about 1.6 million students across the country.

Vodafone Foundation helps fulfil the vision of holistic development for students. Model schools are established in Karnataka, Gujarat, and Maharashtra, in addition to the five states supported by the Jigyasa programme. These schools are provided with the civil infrastructure, library resources and other facilities essential to make the school conducive to learning.

The Foundation has also deepened its support to teachers. It has developed Gurushala – a knowledge-sharing platform – which equips a growing community of over 200,000 teachers with resources, training and community networking facilities, accessible in both Hindi and English. "I get topic-related videos and share them with the class," says Sunita Sharma, a teacher from Delhi. "I have also been able to connect and clear children's doubts using Google Meet and WhatsApp."

This initiative has become more of a movement, with more teachers joining the active online community. Teachers access and share over 30,000 content pieces that help them modify their teaching material in innovative ways. This is how a school mentor turned things around for Sufiya, a differently-abled, class V student from Haridwar. His learning difficulties and lack of enjoyment in a traditional classroom set-up underwent a sea change when the mentor introduced him to gaming modules. Sufiya's learning journey suddenly became more exciting and positive.

India's education sector is also plagued by lack of awareness and limited access to scholarships. The foundation also launched its yearly Learning with Vodafone Idea Scholarship programme (Vi India Scholarships) in 2020. "Vodafone Idea is committed to leverage technology expertise," said P. Balaji, chief regulatory & corporate affairs officer, Vodafone, at the time of the launch.

The scholarships for teachers provide aid for availing e-learning, infrastructure, such as laptops and online courses, And, the Learning with Vodafone portal – a leading multi-lingual scholarship discovery and assistance platform – informs students about scholarships including the Vi India Scholarships.

Today, the scholarships support over 300 teachers and 3,500 students. "This year, suddenly, we were told to study from home," reminisces Shmruti Prashant Patro from Maharashtra, a beneficiary of the scholarship in 2020. "Our teacher was taking classes on mobile phones, which my parents could not afford. I had to borrow it, which was causing delay. Also, I had to miss my class often, since a phone was not available. But, after receiving the Vodafone Idea Students' Scholarship, I purchased a mobile phone, with which I am now able to attend classes and also use the internet. My school fee, pending for the last few months, has also been paid because of the scholarship". The foundation has also improved the engineering students' employability prospects in the ITSS sector too.

Advanced application workshops are offered to university faculty and students by industry experts. Through its initiatives, the foundation hopes to bring quality education to more people across India. Looking ahead, it hopes to see greater co-ordination amongst the players in the education ecosystem. ◆

TOYOTA KIRLOSKAR MOTOR

Promoting holistic growth

Toyota Anganwadi Development Programme lays the foundation of a healthy childhood

Since 2001, CSR has been an integral part of Toyota Kirloskar Motor's (TKM) business philosophy in India. Driven by the five main themes of Education, Environment, Health and Hygiene, Road Safety and Skill Development, TKM has continued to aid the development of children. As a part of this mission, the company along with the Women and Child Development Department of Ramanagara district, Government of Karnataka implemented Toyota Anganwadi Development Programme (TADP) across 30 Anganwadi centres (AWCs) in the district.

Early childhood care and education is the foundation of a healthy childhood. Early experiences influence the cognitive development of a child and directly impacts the development of learning skills and social and emotional abilities of a child. Understanding this need, TADP was initiated by TKM with an aim to upgrade the infrastructure and enabling innovative learning in the AWCs. As a part of this programme, TKM adopted 30 shortlisted AWCs across the Ramanagara district. Prior to setting up these centres, TKM conducted a survey to understand the requirements across the identified centres. This survey acted as a direction setting to initiate TADP in the selected AWCs.

TADP adopted a strategy with four dimensions, keeping in mind a child's unique personality – respective strengths, capabilities, social, linguistic, cultural heritage, and diversity.

To develop a child-friendly environment upgrading infrastructure is crucial. TKM collaborated with Zilla Panchayat, which took up the responsibility to execute this aspect effectively.

Learning through activity TKM understands that learning through an activity is an important way to acquire knowledge for an early age hence, age-specific playing materials and activity-based learning tools were provided at each of the centres.

Initiatives like development of

training modules, conducting trainings, and enabling the trainer's training is followed at the AWCs to ensure the teachers are well trained and knowledgeable.

Additionally, the survey indicated the capacity building of Anganwadi teachers and their basic skills in English were the challenges and an improvement in these areas would make a significant impact on the outcomes.

In collaboration with the Women and Child Welfare Department, a crash course in English was introduced. Spread over five days for over 40 hours, the course includes an introduction to alphabets and their sounds, importance of verbal and non-verbal communication in early childhood education. This course has witnessed a tremendous increase in the confidence levels among the Anganwadi teachers.

A detailed training module is also developed to help the Anganwadi teachers appreciate the preschool learning programme. This interactive training focuses on five important development aspects of the children.

To enhance the capacity of teachers a training programme was conducted for five days in October 2021, where 30 teachers participated. This training provided the participants a better understanding of preschool education, teaching skills, understanding domain of child development, and health and hygiene. Post the training, TKM provided stationery to all 30 Anganwadi centres which enabled the teachers to prepare theme-wise learning materials for children.

An effective tool with different indicators for the project was also developed with a detailed monthly monitoring mechanism. The best practices are documented and shared through a bi-monthly magazine to all Anganwadi teachers in the district for its sustainability.

With TADP, TKM intends to aid capacity development of teachers and process improvements in 30 AWCs which will further facilitate healthy growth and development among children, thus preparing the grounds for lakhs of children.

Till date, TADP has made a strong imprint on more than 70,000 children from government schools in Ramanagara district. There has been a 32 per cent increase in knowledge of preschool education and a 31 per cent improvement in the teaching skills.

Toyota Kirloskar Motor, over the years, has initiated several projects to accelerate access to quality education in Karnataka. Initiatives like school construction, education materials distribution and Anganwadi development programme have cumulatively benefitted over 1,15,000 students. ◆

WISHTREE TECHNOLOGIES

Bearing the fruit

One of the top software development service providers for non-profit organisations, Wishtree Technologies has continually proved its mettle by engaging and collaborating with various UN agencies (WHO, WMO, UNICEF, UNESCO, UNDP, UNHCR, IOM, UNCDF, UNFPA, FAO, etc). Having successfully delivered 50+ projects dedicated towards the realisation of a majority of the UN Sustainable Development Goals (SDGs), Wishtree continues to focus on giving back to society through its technological expertise.

Wishtree has joined hands with UNESCO to develop an online e-learning platform, FramerSpace. The Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP), headquartered in New Delhi, was established with the support of the government of India and is an integral part of UNESCO. It is the first and only category 1 Research Institute in the Asia Pacific and focusses on achieving SDG-4.7 towards education to foster peaceful and sustainable societies. FramerSpace is UNESCO-MGIEP's indigenously designed, AI-powered digital co-creation platform, which helps draw lessons from the tasks done well by AI and factors in 'how' to teach and learn consequently.

Feature rich platform FramerSpace has turned out to be one of the most important and rewarding projects for Wishtree owing to UNESCO's motivation to build a learning and skill development platform during the Covid-19 outbreak. UNESCO has identified a huge gap in learning and experience for students who were forced to continue their academics through a digital medium. FramerSpace was designed keeping that very problem in mind. Numerous online courses available for free for a wide age group of 6-60 years have given a unique edge to this feature-rich platform. In addition, the platform allows users to replicate the assessment structure of their state or national education system. The provision to pick a customised timeframe for each course and certifications has given Framerspace a distinct advantage.

Working alongside UNESCO, Wishtree developed this online platform that would act as a bridge between teachers and students. Any individual can easily set up a course they wish to tutor and it gets listed on the platform. Likewise, anyone looking for a specific course can apply and start learning free of cost. One invaluable feature of FramerSpace is that it does not require separate portals for different users. Teachers, moderators and students can use the same platform – so much so that one can be teaching a course, while being a student for another. FramerSpace was a unique opportunity for Wishtree. The technical aspects and audience demographic of the platform presented some challenges because of the large data flow, its maintenance and management. During the execution, Wishtree's project manager Ajay Varur and the developers did an exemplary job working with the UNESCO team to understand the objectives, outcomes and impact of FramerSpace. The team identified certain problems with the existing model of education and was determined to create a platform, which can provide the user with improved learning and ease of use. Because of this, Wishtree was able to fulfil and deliver this project effectively and efficiently.

After delivering FramerSpace, Wishtree's mission to work on such solutions has found a new impetus, as it continues to work across various social impact projects with other UN agencies and reputed nonprofits alike. ◆

REACHA

A game-changing role

Keeping the enemies away: students of Fashion Design Course making masks to combat Covid-19

In collaboration with Indian Army and ONGC, Reacha, a community-based voluntary organisation, has been working on the social aspect of SDGs, specifically on 'Goal 4: Quality Education'. It focuses on skill development, livelihood enhancement and nation building in an aspirational district – Baramulla in Jammu & Kashmir.

In 2016, the Indian army was keen to launch a CSR initiative, as part of Operation Sadbhavana (Goodwill) under its overall counterterrorism strategy. Their intent was to re-integrate the awaam (locals) with the national mainstream and blunt the proxy war abetted from across the borders. In this regard, the Indian army started reaching out to several organisations for support and partnership. Reacha came forward and used its own available resources to support the initiative. It received pro-active support from ONGC CSR, which wanted to strengthen Indian army's efforts in an aspirational district (Baramulla).

With the support of ONGC, the Indian army and Reacha together developed projects based on local needs, customs and traditions, which are being undertaken in Baramulla under Operation Sadbhavana. The projects comprise courses on fashion designing, music & culture, as also hospitality & retail. The classes for these are held at the Chinar 9 Jawan Club, a campus of the Indian army in Baramulla. Simultaneously, with Kojics Foundation, Reacha aims to make the full benefits of coding available to children, by educating schoolteachers in coding at Baramulla (and other parts of India) in an effort to upskill children and prepare them for 21st century. This course also aligns with National Education Policy (NEP) 2020, which has identified coding as a core skill for the future.

The fashion designing course is designed exclusively for women, whereby Reacha is contributing to 'Goal 5: Gender Equality' too.

These interventions through skill development courses are being implemented with the aim of dissuading the Kashmiri youth from getting enmeshed in militancy, by empowering them to be a part of the national mainstream.

Feature rich platform However, implementing these programmes has been challenging for Reacha, as Baramulla is a conflict zone, where militant and antinational activities have been prevalent. However, Reacha, in consultation with Indian Army and local staff, has devised innovative solutions to continue the activities under the project.

Often, even after being trained, the youth do not prefer to move out of the state. Those who were placed in different parts of India, were soon found leaving their jobs, because they were not able to adjust in other places or due to low remuneration resulting from their lower education qualification.

To address this issue, Reacha has initiated an innovative 'Cell for Livelihood Enhancement' (CLE) with the help of Genpact & NASSCOM Foundation. This initiative aims to make livelihood prospects more sustainable, by forming Self Help Groups (SHGs)/ group enterprises and giving them additional training (if required) or by providing the youth scholarships and helping them to find placements. The SHGs have enabled beneficiaries of vocational training courses to not only become job seekers, but also job providers.

Since the inception of skill development courses in 2016 and later with initiation of Cell for Livelihood Enhancement in 2018, there have been significant outcome for the programmes.

These ideas and efforts of team Reacha in implementing the projects has been bearing fruits. Baramulla has seen lesser incidences of stone pelting and infiltration and the Kashmiri youth can be seen motivated to join the courses after witnessing positive changes in lives and livelihoods of their mates and their families.

The feeling of alienation among the youth in Baramulla has now lessened. Kashmiri women have realised their potential and have moved from a state of being under patriarchal control to a one of liberation and empowerment. They have also started motivating male members to move towards constructive work.

"Reacha has contributed in mainstreaming the school dropouts, drug addicts as well as youth from radicalised areas of Baramulla during challenging times," acknowledge the army officials.

The projects at Chinar 9 Jawan Club, Baramulla, received national recognition when ONGC won the FICCI CSR Award 2018 for its unending support to this nation-building initiative. In November 2019, ONGC received the National Media Conclave (NMC) Award 2019 under the category Best CSR Project for Women Development, from Institute of Media Studies, Utkal University, Odisha, and Information & Broadcasting Ministry, government of India, for implementing socio-economic empowerment programmes, through skill development initiatives. ◆

INDIAN RAILWAY FINANCE CORPORATION
(A Government of India Enterprise)
Future on Track

IRFC diversifying its portfolio to make Indian Railways future-ready

Azadi Ka Amrit Mahotsav

INDIAN RAILWAY Finance Corporation (IRFC) is a Schedule 'A'/Miniratna Public Sector Enterprise under administrative control of Ministry of Railways, Government of India. The company was set up in December 1986 for mobilizing funds from domestic and overseas markets to meet the pre-dominant portion of Extra Budgetary Resources requirement of Indian Railways.

Shri Amitabh Banerjee
Chairman & Managing Director,
Indian Railway Finance Corporation Limited

The company finances acquisition of rolling stock assets along with providing funds for building infrastructure for Railways. The primary objective of IRFC is to meet the 'Extra Budgetary Resources' (EBR) of Indian Railways through market borrowings at the most competitive rates.

IRFC has been playing a pivotal role in overall growth of Indian Railways by consistently supporting the expansion and modernization of infrastructure of Indian Railways through funding of rolling stock/railway projects and capacity enhancement works.

Since inception, IRFC has funded acquisition of 12,341 locomotives, 69,345 passenger coaches and 2,51,191 freight wagons. Our focused approach to supporting the expansion and modernisation of Indian Railways keeps us perfectly poised to make Indian Railways future-ready.

This is evident from the fact that the cumulative funding to Indian Railway sector has crossed Rs. 5.22 lakh crore mark to end of 31st December 2021.

The funding to the rail sector has grown exponentially in the last few years. The funding, during the last 5 years, has been of the order of Rs. 2.95 lakh crore constituting about 61% of total disbursement since inception.

The annual borrowing target mandated by Ministry of Railways has registered an exponential growth with the target reaching Rs. 1.04 lakh crore in 2020-21 as against only Rs. 11,000 crore in 2014-15, which is an increase of about 10 times.

The Asset Under Management has registered a tremendous growth and has reached a level of Rs. 4,02,300 crore at the end of December 2021. The net worth has reached the level of Rs. 39,504.67 crore at the end of December 2021.

The revenue from operations was Rs. 15,770.45 crore for FY 2020-21, showing a growth of 17.51% as compared to the corresponding previous financial year. The Profit After Tax (PAT) for the year ending 31st March, 2021 was Rs.4,416.11 crore. The company paid handsome dividend in terms of the Government guidelines at 31% of profit last year.

Meanwhile, during the nine-month period ended 31st December 2021, the company posted revenue from operations at Rs. 14,368 crore and PAT at Rs. 4,597 crore showing a growth of 27% and 57% over the corresponding period respectively.

The compounded annual growth rates of Revenue from Operations, Profit After Tax, Assets Under Management, and Net Worth over the last 5 years are approx. 16%, 39.08%, 33% and 23% respectively.

IRFC successfully completed its IPO and listing of equity shares in January 2021. Post IPO, the company has performed exceptionally well on all fronts and it has lived up to the expectations of its parent ministry and all its stakeholders.

Pertinent to mention that IRFC has recently raised USD 500 million 144A/Reg S Green Offshore Bonds and became the first CPSE in the country to list its offshore bonds exclusively at Indian stock exchanges established in the GIFT City, Gandhinagar.

The company is constantly diversifying its borrowing portfolio to adequately support the endeavours of Indian Railways, year after year. IRFC is considered the best credit in the domestic capital market which has enabled it to raise funds consistently at 35 to 40 bps lower as compared to other entities in the same ecosystem. the cost advantage derived by IRFC vis-à-vis its peers in overseas financial markets is in the range of 60 to 65 bps.

IRFC is also exploring options to diversify its lending portfolio and other avenues where we can finance other infra projects which are having backward and forward linkage with Indian Railways in the government/private sector with proper techno-commercial due diligence and with adequate security mechanism.

Since, we have the inherent strength and advantage of raising funds at very competitive rates, we would like to leverage the same to our advantage towards efficient and effective diversification of lending portfolio.

The cost competitiveness of IRFC can be attributed primarily to the best possible rating accorded to it by the prominent domestic as well as international credit rating agencies. The company has been consistently graded 'Excellent' by the Department of Public Enterprises for its performance vis-à-vis the targets set out in the Memorandum of Understanding executed with Ministry of Railways, Government of India.

IRFC foresees a strong partnership with Indian Railways on the back of a robust financial performance and persistent growth in terms of revenue and profitability. The company hopes to continue its growth path and will continue to adequately support Indian Railways in its future endeavours as well.

INDIAN RAILWAY FINANCE CORPORATION
(A Government of India Enterprise)

Future on Track

FINANCING RAILWAY
INFRASTRUCTURE
PROJECTS
&
ROLLING STOCK
WAP-4
22348

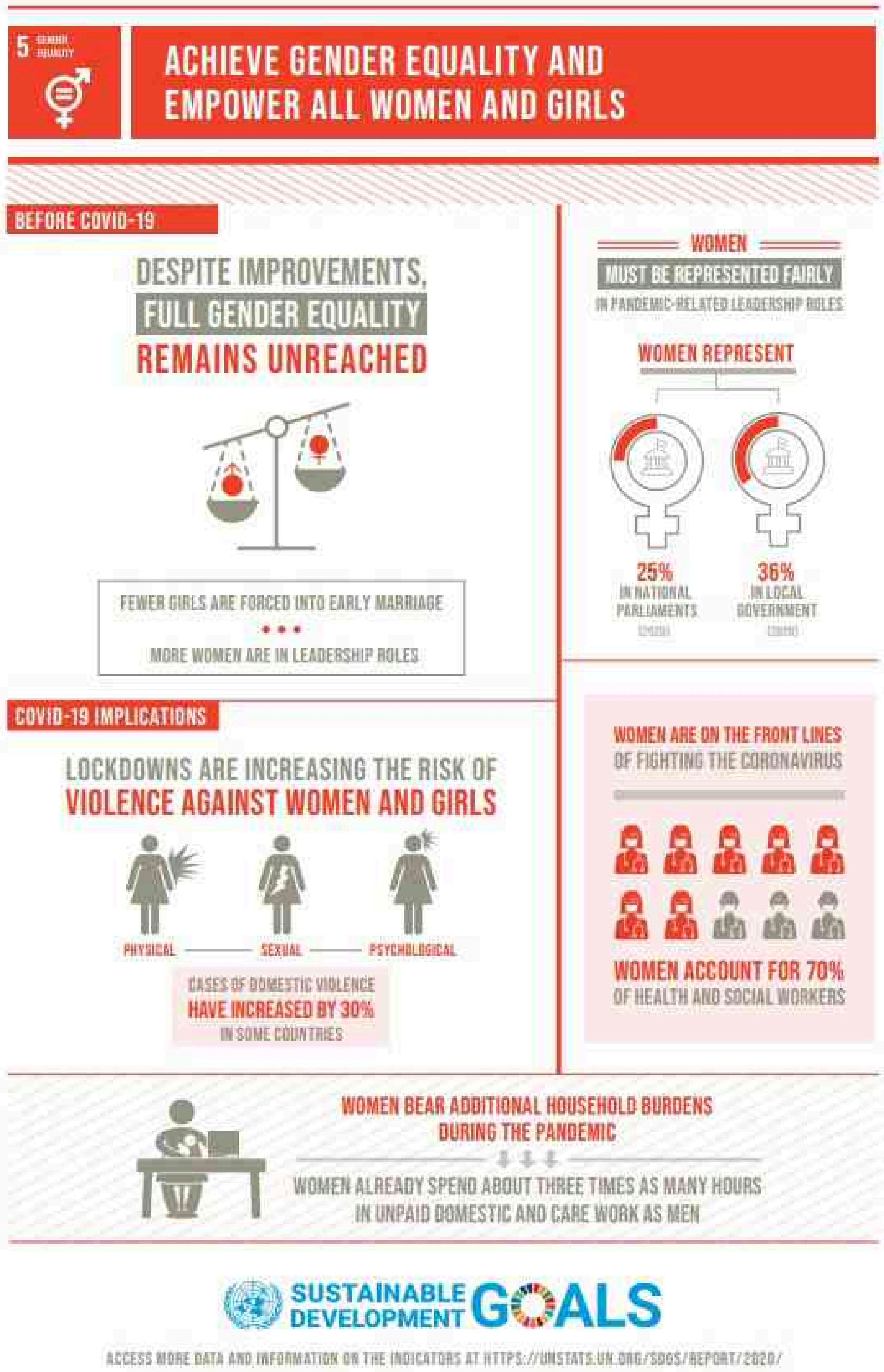
Funded ₹5.22 trillion^ to Ministry of Railways for progress of the Nation

- IRFC - Dedicated market borrowing arm for Indian Railways
- Registered with RBI as a systemically Important NBFC-ND-IFC
- Funded acquisition on 12,341 locomotives, 69,345 passenger coaches and 251,191 fright wagons
- Total revenue from operations increased by 27% during nine-month period ending 31st December, 2021 vis-à-vis corresponding period
- Zero non-performing assets and Capital Adequacy Ratio of 466.34%
- Rolling Stock Assets worth ₹2.75 trillion

^Cumulative funding of ₹5.22 trillion as of 31st December, 2021

Registered Office : Room No. 1316-1349, 3rd Floor, The Ashok, 50-B, Diplomatic Enclave, Chanakyapuri, New Delhi - 110021 Tel. No. 011-24100385 I Email info@irfc.nic.in I www.irfc.nic.in

Goal: Achieve gender equality and empower all women and girls



ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

BEFORE COVID-19

DESPITE IMPROVEMENTS, FULL GENDER EQUALITY REMAINS UNREACHED

FEWER GIRLS ARE FORCED INTO EARLY MARRIAGE
• • •
MORE WOMEN ARE IN LEADERSHIP ROLES

WOMEN MUST BE REPRESENTED FAIRLY IN PANDEMIC-RELATED LEADERSHIP ROLES

WOMEN REPRESENT

25% IN NATIONAL PARLIAMENTS (2020)

36% IN LOCAL GOVERNMENT (2020)

COVID-19 IMPLICATIONS

LOCKDOWNS ARE INCREASING THE RISK OF VIOLENCE AGAINST WOMEN AND GIRLS

PHYSICAL — SEXUAL — PSYCHOLOGICAL

CASES OF DOMESTIC VIOLENCE HAVE INCREASED BY 30% IN SOME COUNTRIES

WOMEN ARE ON THE FRONT LINES OF FIGHTING THE CORONAVIRUS

WOMEN ACCOUNT FOR 70% OF HEALTH AND SOCIAL WORKERS

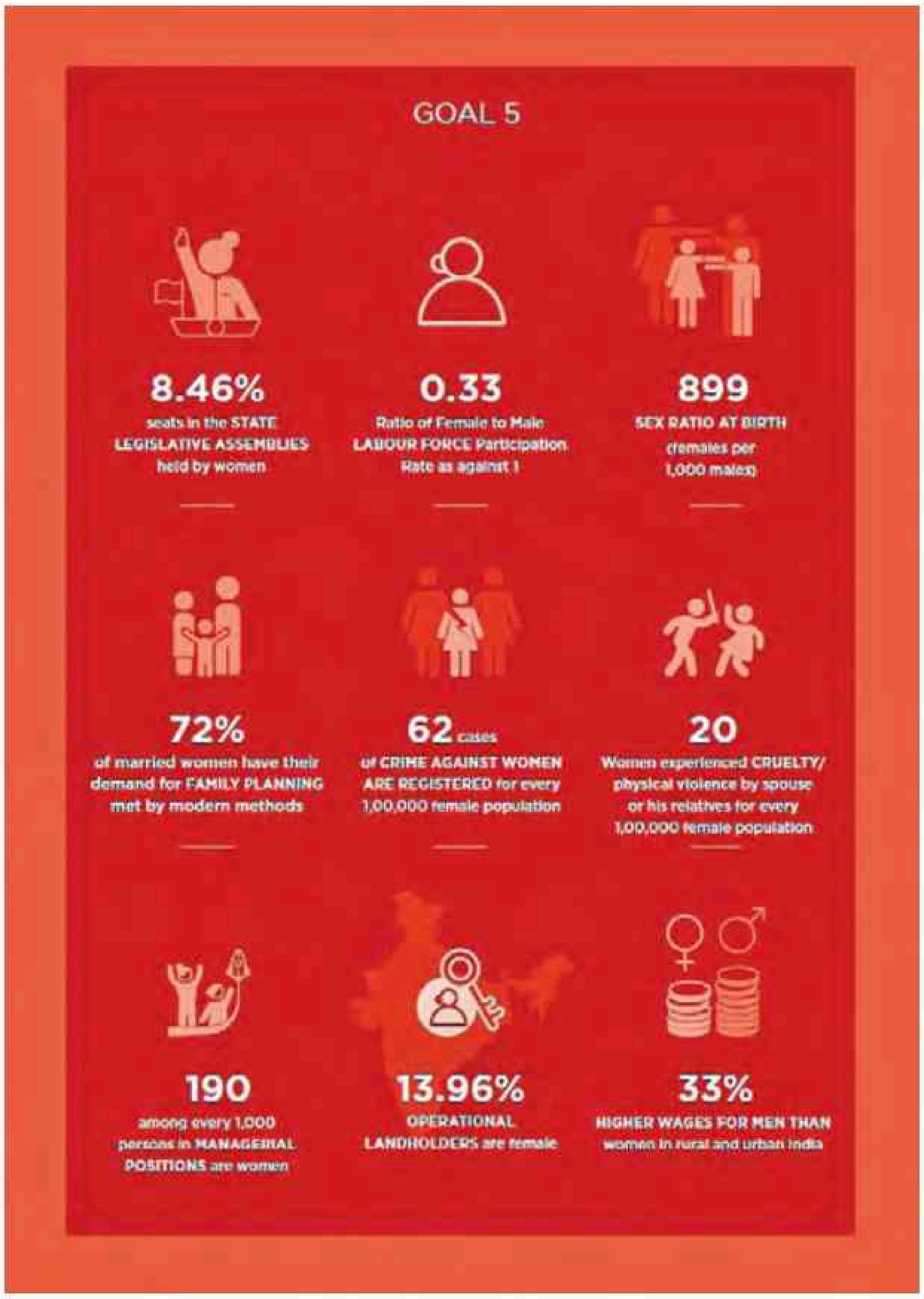
WOMEN BEAR ADDITIONAL HOUSEHOLD BURDENS DURING THE PANDEMIC

WOMEN ALREADY SPEND ABOUT THREE TIMES AS MANY HOURS IN UNPAID DOMESTIC AND CARE WORK AS MEN

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 5

8.46% seats in the STATE LEGISLATIVE ASSEMBLIES held by women

0.33 Ratio of Female to Male LABOUR FORCE Participation Rate as against 1

899 SEX RATIO AT BIRTH (females per 1,000 males)

72% of married women have their demand for FAMILY PLANNING met by modern methods

62 cases of CRIME AGAINST WOMEN ARE REGISTERED for every 1,00,000 female population

20 Women experienced CRUELTY/ physical violence by spouse or his relatives for every 1,00,000 female population

190 among every 1,000 persons in MANAGERIAL POSITIONS are women

13.96% OPERATIONAL LANDHOLDERS are female

33% HIGHER WAGES FOR MEN THAN women in rural and urban India

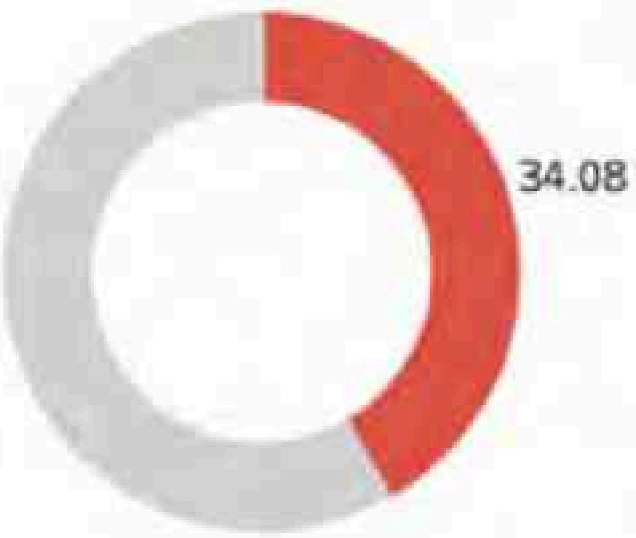
Source: NITI Aayog

5 GENDER EQUALITY

Country Rank

156/165

Score



UN Dashboard Status

Major challenges ●

Trend

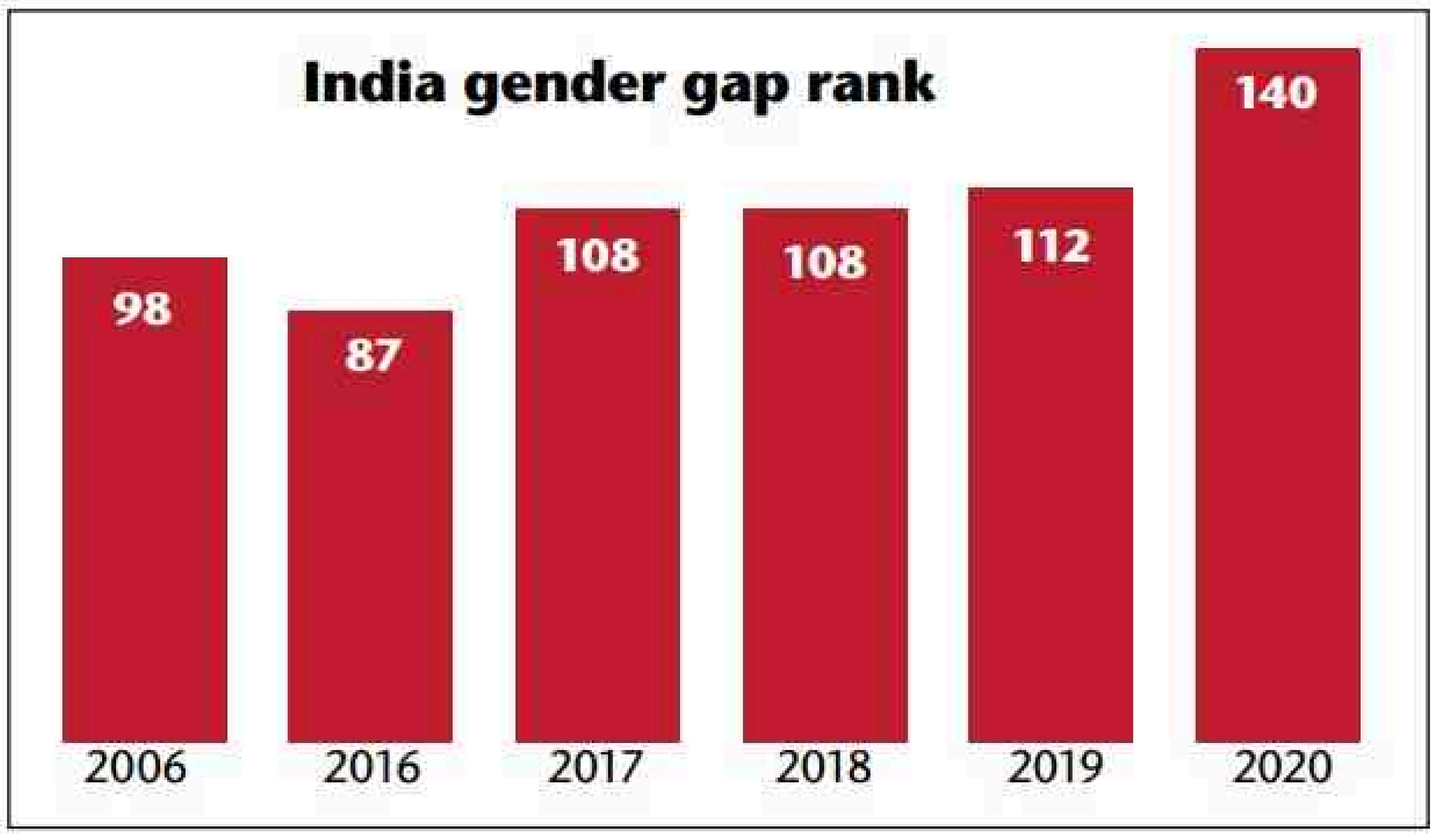
Stagnating →

Gender Equality has been at the forefront of many social discussions and is a contentious topic for some. India's extensive goals around the SDG have been planned around the nation's endeavour to end discrimination against women and girls, which should be a prerequisite and a basic human right. Through this SDG India has also highlighted various steps to end all forms of gender-related violence, trafficking and sexual exploitation of women. The targets listed for 2030 include:

5.1 End all forms of discrimination against all women and girls everywhere
5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation
5.3 Eliminate all harmful practices, such as child, early and forced marriage, and female genital mutilation
5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate
5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life
5.6 Ensure universal access to sexual and reproductive health and reproductive rights

While the targets listed in NITI Aayog's Annual SDG India Index are extensive, the UN's latest publication ranks India 156th in the world, with a score of 34, showing that despite the spotlight the subject receives, there are significant challenges ahead and that progress towards a gender-equal nation is stagnating.

To understand Gender Equality, we begin by looking at the sex ratio at birth, which refers to the number of female births per thousand male births, an essential social indicator that helps measure the extent of prevailing equality between males and females in society. While the skewed sex ratio in many South Asian countries is well known, the long-standing belief has been that the drastic difference between males and females is declining.



However, the United Nations Population Division and Census India data show that India's sex ratio at birth was above the global sex ratio at birth in 1963 but has since faced a rapid decline. As of 2018, India's sex ratio at birth has fallen from 948.77 to 909.01, reaching 899.28 at its lowest in the early 2000s. Interestingly, this decline is also reflected in the global trend, with the international rates reaching 927.9.

The drastic decline in the sex ratio at birth is merely one of the signs of the gender gap in India. The Gender Gap Index (GGI), which examines the gap between men and women, shows India's year-on-year ranking among 153 countries worldwide. The GGI considers four fundamental categories: economic participation and opportunity, educational attainment, health and survival, and political empowerment. Based on these factors, it was seen that India had progressed towards closing the gender gap between 2006 and 2016, reaching a high of 87th in 2016. However, despite this increase, the countries ranking fell from 98th in the world to 140th in the last five years.

Contributing factors

Numerous factors contribute to the growing gender gap among women in India, with financial inequality being one of the forerunners. As per 2020 data, the ratio of female to male average wage changes drastically across India, with states such as Uttar Pradesh, Gujarat and Rajasthan performing well, with 94 per cent, 81 per cent and 79 per cent pay parity, which is higher than the national average for 2020 - 74 per cent. On the other hand, Chhattisgarh, Jharkhand, and West Bengal are among the poorest performing states on this parameter, with women earning only 64 per cent, 58 per cent and 53 per cent of what males earn.

Overall, financial inequality has seen a decline between 2017 and 2020, though somewhat erratic, from 80 per cent to 74 per cent.

Declining financial inequality is also evident when assessing women's access to amenities such as a bank account or even assessing their wealth in terms of landholdings. Resources such as these can help financial independence and stability. Since 2016, over 50 per cent of women had bank accounts in most southern and northern states with Tamil Nadu and Himachal Pradesh leading at 68.2 per cent and 68.8 per cent respectively. Bihar was the worst at 26.4 per cent.

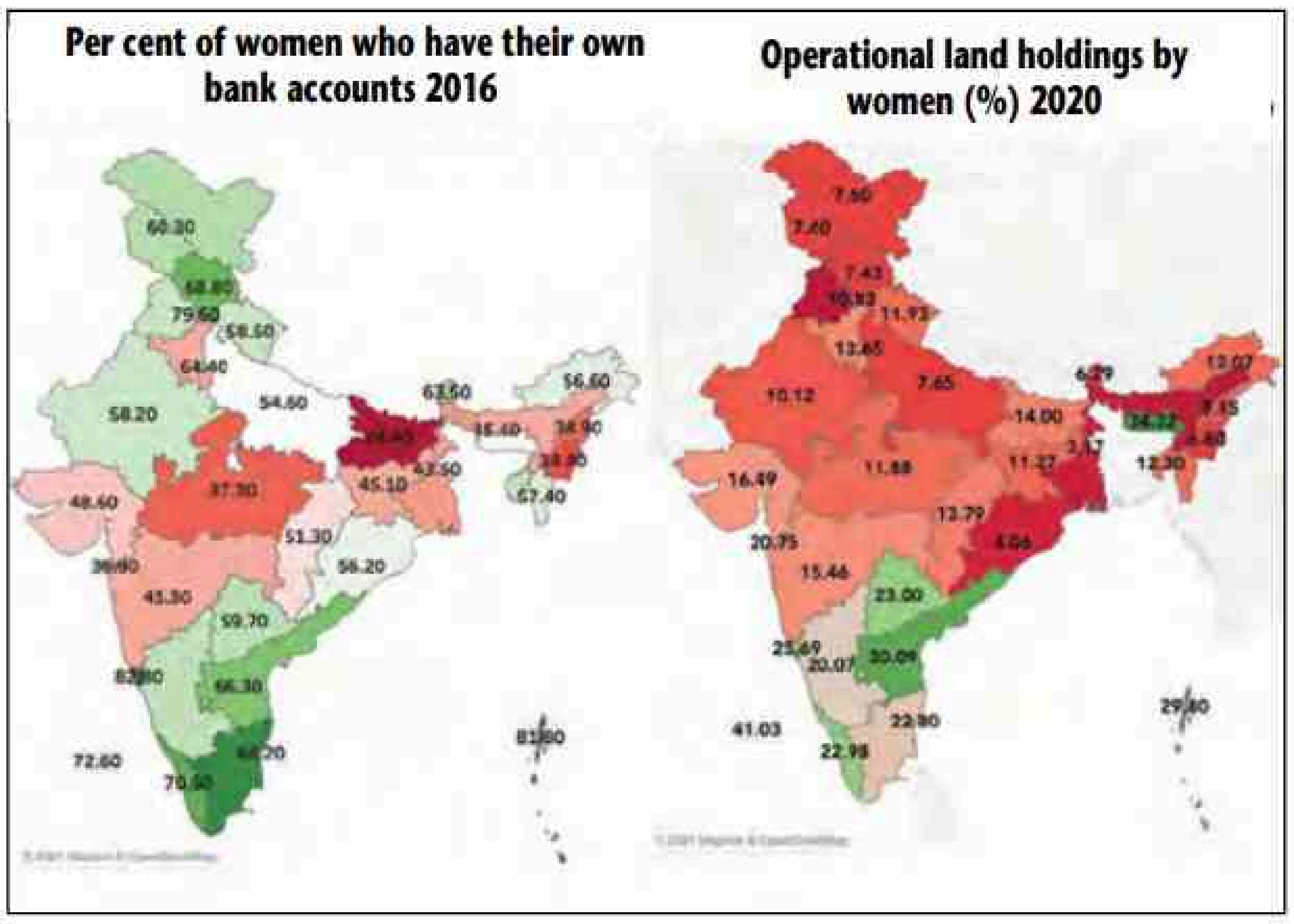
However, the picture is not as optimistic when we look at women's landholdings. National reports for 2020 show that the proportion of land owned by women vs men is significantly low across the nation, with women in North India having less than 20 per cent of the landholdings. Meghalaya and Andhra Pradesh had the highest women-held land at 34.3 per cent and 30 per cent respectively. West Bengal was the worst at 3.17 per cent.

Women's lack of financial independence could be a factor in the percentage of participation in the labour force. Female labour force participation rate refers to the share of working-age women who report either being employed or available for work. As per data from the Ministry of Statistics, India's female labour force participation rate has consistently remained nearly half that of the global rate. As of 1998, the female labour force participation rate in India was at 35.7 per cent, reaching a high of 38.35 per cent in 2004. While this rate was in line with the average of South Asia, it has since seen a significant decline, reaching 27.38 per cent in 2020. Overall, today's female labour force participation rate is worse than it was 30 years ago. This is a global trend.

Numerous factors can contribute towards employment, and literacy is often a leading component. The literacy rate, which is the number of people of age seven and above who can both read and write with understanding in any language of the total population of 7 and above, helps understand education and employability across the nation. In India, there is a considerable difference in literacy rates between rural and urban India. Between 1994 and 2014, the percentage of women who could read and write increased from 64 per cent to 81 per cent, less than 10 points below the rate of men in the same region.

The literacy rate in rural India has, however, shown significant improvement. While the gap between men and women in 2014 continues to be substantial at 20 points, the literacy rate doubled from 30 per cent in 1991 to 61.50 per cent in 2014. This trend is also seen in mobile phone usage amongst women, which is significantly higher for women in cities than in rural India.

Other factors that affect Gender Equality are the crimes against women. These constitute random acts and those carried out by people in their inner circle, inhibiting their freedom. The National Crime Records Bureau Reports from 2019 show that the number of crimes committed against women is significantly high across India. The crime rate, which measures the crimes against women per 1 lakh population, is highest in Rajasthan, Assam, and Delhi. Among these crimes, over 90 per cent of the perpetrators are friends or family of the woman – indicative of an increased contribution of domestic and spousal violence to the overall offence. Assam has the highest reported rate of crime against women at 177.8 women per lakh, while neighbouring Nagaland has the least reported rate at 4.1 women per lakh.


Per cent of women who have their own bank accounts 2016

Operational land holdings by women (%) 2020

Similar reports on spousal violation for 2016 show that in 8 states, including Manipur, Bihar, Telangana, and Andhra Pradesh, close to 40 per cent of women have reported cases of spousal violence; with more than 50 per cent of married women having reported spousal violence in Manipur.

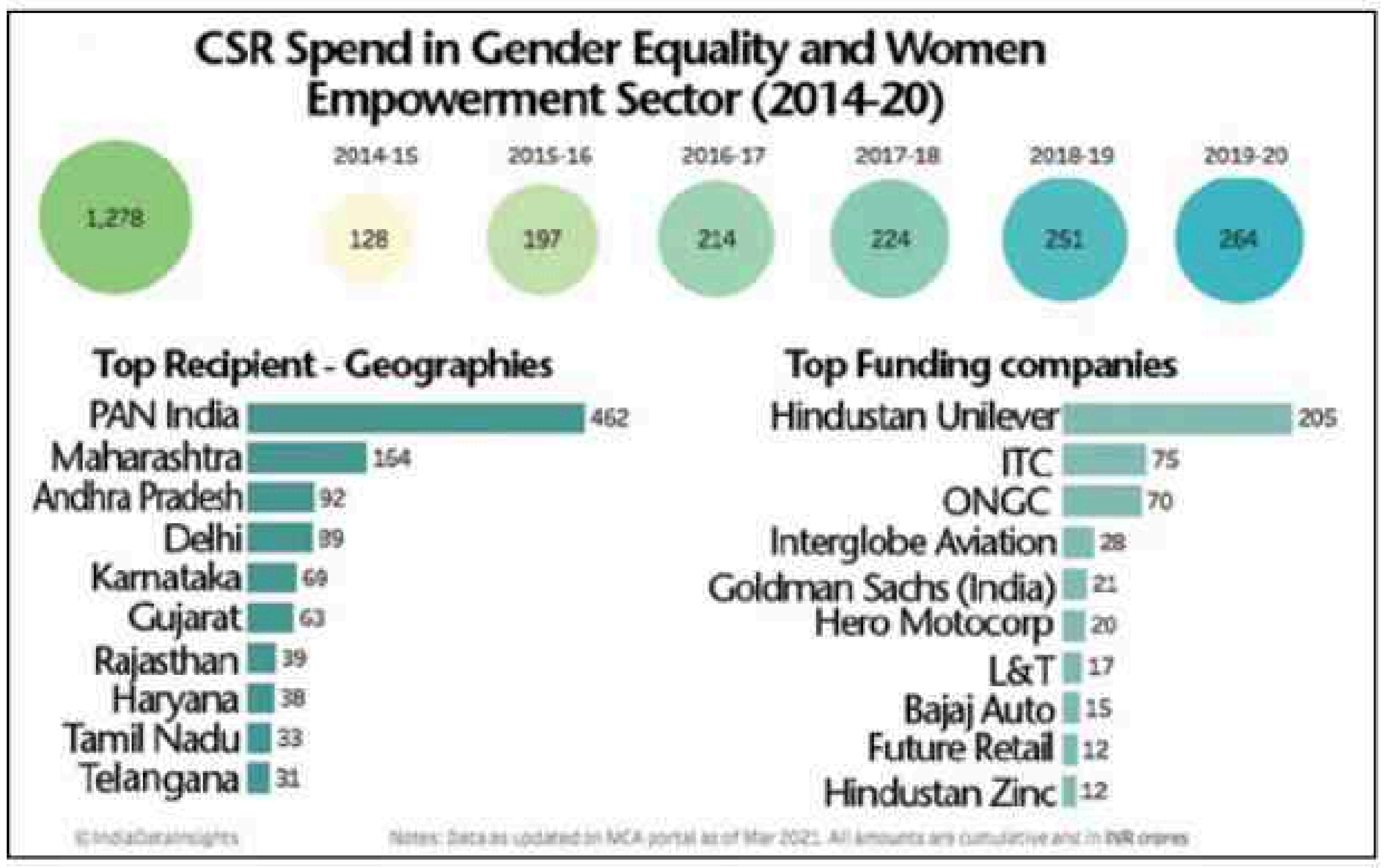
Regional trends in spousal violence are also drastically different. While urban areas have shown a decrease by 13.6 per cent in violence over a decade, rural areas have shown a 1 per cent increase.

On average, in India, spousal violence has decreased by 11.4 per cent in the last decade. Yet, one in three women still faces spousal or domestic abuse.

Other factors that exacerbate the gender gap are marriage and pregnancy. Married women, especially those with children, lack the freedom to work. In India, child marriages can significantly affect a girl's ability to enroll in school and learn skills that enable her to have a career.

Between 2006 and 2016, the number of teenage pregnancies in urban India has seen a decline, with only 5 per cent of women below 19 having children as opposed to 16 per cent in 2006. In rural India, this number has increased by 0.5 per cent over the decade. These trends continue to persist among women between the ages of 20 - 24, with the number of urban women with children dropping from 47.4 per cent in 2006 to 17.5 per cent in 2016, while rural women have seen a slight increase from 29.30 per cent to 31.50 per cent during the same time.

CORPORATE CONTRIBUTION


CSR Spend in Gender Equality and Women Empowerment Sector (2014-20)

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Notes: Data as updated in MCA portal as of Mar 2021. All amounts are cumulative and in INR crores

Since 2014, the areas of Gender Equality and Women Empowerment have received ₹1,278 crores, a meager 1.5 per cent of the total CSR funds of India Inc. In 2014-15 these sectors received only ₹128 crores. CSR spend in these sectors has doubled in the last two fiscal years Hindustan Unilever has contributed 16 per cent of the total CSR funds in these sectors. The other companies that have made nominal contributions in this space include ITC, ONGC, Interglobe Aviation (IndiGo), and Goldman Sachs India. Maharashtra continues to be the biggest beneficiary at ₹164 crores, which is more than the amount received by the next four states/UTs – Andhra Pradesh, Delhi, Karnataka, and Gujarat.

Gender Equality in India today is in a dire state, given the crimes against women and the lack of financial independence. Bridging it will take the concerted efforts of various groups that help ensure women get an education and support their health and overall well-being. Only when government and corporate entities come together to address a host of issues that impact and catalyse gender quality, will it be possible to create some semblance of Gender Equality across the country.

Forerunner to SDG success

Promoting gender equality is crucial to accelerating sustainable development

ASHWIN YARDI

In 2015, the United Nations adopted the 2030 Agenda for Sustainable Development. The goal was to define the future we want. It also provides a blueprint for peace and prosperity for people and the planet, now and for the future. The new plan outlined 17 SDGs or 'global goals'. These carry unprecedented potential for changing the existing socio-economic, political, and cultural conditions in society – a critical blueprint for creating an equitable world.

While each of the SDGs is an accelerator of change, SDG-5 seeks to achieve gender equality. It has three critical aims: ensuring women's participation at all levels of decision-making and providing opportunities for leadership; enhancing the use of enabling technology, in particular ICT, for their empowerment; and strengthening legislation for gender equality in all areas.

Unfortunately, this is a distant reality for most women. Globally, while women's labour participation is almost 50 per cent, their representation in leadership is abysmal. Women are less likely than men to use or own digital technologies. And government legislations for women empowerment hardly show the results they seek to achieve.

The UN Secretary General's SDG Progress Report states that gender inequality is due to discrimination at all levels, especially the workplace. It calls upon the corporate world to make gender equality an inviolable human right. This makes business sense too. Companies with a diverse workforce are 35 per cent more likely to perform better than their less diverse peers (McKinsey), and 70 per cent of diverse companies are better positioned to capture new markets (Harvard Business Review).

Similarly, a review by Catalyst showed companies with more women in senior leadership had a 35 per cent higher return on equity and 34 per cent higher total shareholder return than companies relying on the typical 'culture fit' – male-dominated and monocultural. But the 2021 Fortune 500 list shows female CEOs are running only 41 out of 500 companies. Clearly, change should start at both ends – the top and the bottom!

The call for a new organisational culture: Peter Drucker once said, "Culture eats strategy for breakfast." Indeed, a strong organisational culture is essential for competitiveness, while a wrong culture undermines the best company strategies. Gender equity is a challenge for all companies – from Fortune 500 to Silicon Valley. While everyone agrees that the problem must be fixed, more needs to be done.

In less inclusive workplaces, where women are discriminated against, the probability that women will advance to management roles is lower compared with men. This is truer for LGBT+ groups, or for historically disadvantaged women – like those of colour or from lower castes – who also typically face more obstacles in life.

The full incorporation of women's capacities – across sectors – will add to a new growth culture. Take the response to the Covid pandemic, for instance. Women leaders – New Zealand's Prime Minister Jacinda Ardern, Taiwan's President Tsai Ing-wen, German Chancellor Angela Merkel, Heads of State from Nordic countries – were clearly more successful in tackling the pandemic.

At the corporate level, the better-performing companies in Covid times were those that borrowed from the female playbook – displaying incredible care of employees and stakeholders, high levels of empathy, and establishing a more effective 'people connect.' While the jury may be out on that, one thing is clear – investing in women at all levels – political or corporate – is pivotal to the development of families, communities, and countries.

Need for a multi-pronged approach … at all levels: A Capgemini report on Inclusive Tech demonstrates why technological inclusivity is critical in the context of women and ethnic minorities. It establishes a clear relationship between inclusive tech teams and inclusive design of technology. Through innovation, investment and development of products and services, the corporate world can be key to advancing gender equality.

The UN's SDGs offer a strategic and timely moment to advance the economic empowerment of women. However, acting on this agenda requires a political and cultural change to overcome the systemic discrimination women face in achieving economic freedom and empowerment. To walk the SDG talk, we must pursue an action plan that accounts for underlying social norms.

We must work to eliminate discrimination in labour laws. We must invest in data and technical capacity to measure and track progress on social change. We must enable real accountability in our commitments to women, through adequate budgets and national gender networks (a multi-layered approach involving community leaders, civil society, governments, and the private sector).

Similarly, the current Covid-induced remote and hybrid work culture presents opportunities to

The author is Chief Executive Officer - Capgemini India corporates to reach out to women more and work towards creating a more liberal environment to push diversity. It also affords a rational ecosystem to promote diversity across an organisation's supply chains and distribution channels such as partners and clients.

Corporate role: A World Economic Forum Report says that the world is 100 years away from gender equality. India doesn't fare too well here, but the country is working to change the narrative. While the optics of having the world's second woman prime minister, as well as a woman president, or women leaders handling critical portfolios of finance, defence or external affairs is inspiring, what we need is real work at the grassroots level.

In recent years, the '*Beti Bachao Beti Padhao*' programme has improved child sex ratio and closed gender gaps in our education. Focused initiatives like 'Mudra Yojana Scheme for Women' are helping entrepreneurial young women like never before. On the corporate side, the government's new norms on maternity benefits or creche facilities have made a huge difference at the workplace.

But gender equality is a shared responsibility. The corporate sector should play a pivotal role in investing in community-oriented training, deploying infrastructure, and delivering a wide range of ICT services to meet these needs. Within the organisation, Career Comeback or Career Acceleration initiatives, as well as focused programmes to develop and retain women at mid-career and senior levels are critical for promoting diversity and for advancing gender balance in leadership.

Beyond the organisation, effective partnerships can help realise the opportunities ICT can offer, by boosting skilling, equipping women with digital knowledge, and providing training. Corporates should assume greater and bigger responsibilities in training disadvantaged groups like rural women and youth in job skills, especially tech skills, to bring them into the mainstream.

The SDG action plan is our best bet for changing the world by 2030. While the SDGs are interlinked, only SDG-5 can unlock them all. For example, it helps better achieve SDG-3 targets for family planning and reproductive health, or SDG-4 targets for gender parity in education. Advancing innovation and industry (SDG-9) can uncover women's entrepreneurial potential by bringing more talent to the workforce.

Empowering women and promoting gender equality is crucial to accelerating overall sustainable development. Gender equality is aspirational. It involves both transversal and specific approaches. And it's simple – we only need to look inward. We should invest in our girls and open our workplaces wider to enable them to work, to lead, and to thrive.

That's where we must do battle. It's worth it! ◆

PROMISE OF A STAINLESS TOMORROW

CSR and sustainable business strategies by Jindal Stainless

Head-CSR, Jindal Stainless,
Brig Rajiv Williams (Retd.)

The spirit of the United Nations' SDGs is well-encapsulated in Jindal Stainless' vision statement – *Improving lives through trustworthy and innovative stain-less solutions.* Jindal Stainless implements its Corporate Social Responsibility (CSR) projects directly or through its Foundation in collaboration with other implementing partners and is an enabler of sustainable community development, making beneficiaries self-reliant through a process of direct intervention. Some of the key focus areas are education, skill training, entrepreneurship, women empowerment, integrated health care, and climate change. Through its 'Agriculture extension project', in collaboration with Gram Unnati Foundation, Jindal Stainless focuses on technical advancement of farmers through latest high end IT interventions, and enables them to have a direct access to buyers. The Company has also been engaged in reducing its carbon footprints; working on climate adaptive technologies and investment in high-end technology manufacturing processes.

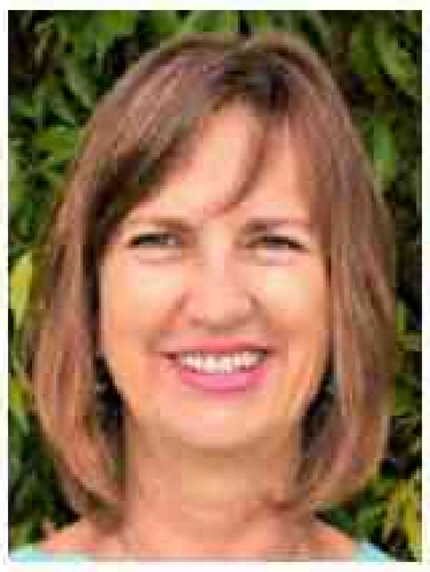
The Company has undertaken several initiatives on livelihood generation and Women Empowerment with the aim of entrepreneurship development. These include creating Self Help Groups (SHGs) and running various activities around capacity building from activities linked projects, to sourcing, finance, and marketing initiatives. This has enabled several women setting up their own enterprises and become financially independent.

Jindal Stainless also trains women in steel making and molding. With continuous mobilization, the Company was able to break the taboo attached to women working in steel units. Over time, it has been observed that with women working alongside their male colleagues in the stainless steel factory, the production has increased, quality checks carried out by the women controllers and has led to almost negligible product rejects and has impacted positively the Company's bottom line.

Jindal Stainless has been factoring various areas of SDGs in all its 'programmatic' engagement. Its intervention can be included under SDGs 1, 2, 3, 4, 6, 11 and 17, besides some where the process of M&E is underway. We believe that collaborative and sustained efforts are the only way to scale up community development. Compliance or compulsions are not the drivers of our CSR initiatives. Instead, we strive to touch upon all stakeholders and nurture a symbiotic relationship for co-existence and mutual benefit.

Women's economic empowerment

A holistic, value-chain approach is needed to promote a gender-equal India and greater economic development for all



SUSAN FERGUSON

Women represent 50 per cent of the world's population. Achieving the political, economic and social equality of all women, therefore, stands to benefit half the globe directly, with positive impacts on the other half through economic development. And, yet, women face barriers right from birth. In India and other parts of the world, deeply ingrained societal preferences for the male child means that women face discrimination across many aspects of their lives, from birth onwards.As an example, the Ministry of Health & Family Welfare in India identifies the child sex ratio of 918 females per 1,000 males (Census 2011) as a significant area of concern. This has gone down from 927 in 2001 and 945 in 1991, although the sex ratio at birth has shown some improvement from 892 in 2000-02 to 909 in 2011-13.

Physical and sexual violence against women at home and at work reduces women's ability to make choices over their own lives, including their right to work. This violence is an issue affecting at least one-third of the world's women. Women spend as much as 10 times the time that men do on unpaid domestic chores, which inhibits the time woman are able to devote to work outside the home. The outbreak of Covid-19 has exacerbated this situation. Many women have had to stop working formally to devote themselves solely to unpaid domestic work. In the decade before the pandemic, female labour force participation had already been trending downward. As workers, women are employed largely in informal jobs and in less regulated sectors, which leave them without formal protections.Women hold less positions of leadership in the workspace. Although numbers are increasing, in India, women accounted for just 16.3 per cent of the new board appointments in 2020, as compared to about 30 per cent new board appointees globally.

However, over the years, the government of India and the states have taken many important initiatives to increase women's participation in the workforce -- starting from notifications removing restrictions on women's right to work at night in factories or in underground mines to mandating at least one woman director on boards of certain companies (with turnover of ₹300+ crore). Comprehensive maternity benefits and protection from sexual harassment at the workplace has been crucial to enable women to remain in the workplace safely. Initiatives such as National Rural Livelihoods Mission, National Skills Development Mission and Start-up India are all examples of progressive policies, programmes and legislation, to increase the number of women in the workforce.

The author is UN Women Representative for India

Role of business: Governments have a critical role to play in setting an enabling environment for women's economic empowerment. But business also plays a special role in fulfilling the vision of SDG 5 for gender equality and empowerment of women and girls. Corporate policies and practices have tremendous potential to create a significant spur in decent jobs and equal prospects for women. For this reason, the SDGs recognise businesses as major players in influencing inclusive and sustainable development.

At the same time, businesses have realised that acting for gender equality is not just the right thing to do – it is the smart thing to do. The Boston Consulting Group described the women's market as 'the most important commercial opportunity in our lifetime'. There is ample evidence supporting the business case for promoting gender equality. A McKinsey study shows that companies with gender diversity are 21 per cent more likely to outperform their competitors on profitability. The UN Women India study indicates that women are the fastest growing consumer economy and by 2028, women will control close to 75 per cent of discretionary spending worldwide.

The income of an average Indian woman is below 20.7 per cent of that of an average man, according to the World Economic Forum Global Gender Gap Report for 2021. Gender bias and discrimination continue to pervade workplaces, hampering women's prospects for leadership positions, promotion, and career growth. Therefore, if we are to release the economic dividend that women at work can bring to economies around the world, we need a holistic value chain approach to women's economic empowerment. This means taking action to advance women's economic opportunities within the company into the marketplace and through to the wider community and society. There are ample examples of such leadership by India Inc. Some companies have started to offer gender-neutral parental leave and benefits, which encourages fathers to take on a greater share of care responsibilities in the household. Others have sought to nurture diversity and address the pay gap.

Others in the community have scaled efforts for social and financial inclusion. For instance, RBS Foundation India through its Supporting

Enterprise programme works for the uplift of women and their families in rural areas in over eight states. Through self-help groups, they empowered 20,000 rural women to successfully lead various village-level enterprises, including dairy business, sericulture, agri-business, spices and honey production and micro-finance. Capgemini India provides digital education to rural women who are often restricted to their homes owing to social norms. Using the power of technology, they equip women with employable skills, opening career options in the IT sector for them. IKEA India has committed to equal pay within its organization, where over 40 per cent of the employees are women. At the factory level, women workers have been made aware of their legal rights and access to remedy for workplace grievances. For instance, the clothing company Very Group created awareness of ethical employment practices in its textile unit in Tamil Nadu and has established a grievance redressal mechanism for its workers, thus enabling their voice.

These are just some of the many inspiring initiatives undertaken by companies across the country today. The path taken by them shows their commitment to drive gender equality through all levels of their organisation.

However, several challenges remain.

The first challenge is that companies still lack a comprehensive picture of where they stand on their journey to gender equality. Over 5,600 companies globally have realised this and have signed the UN Global Compact and UN Women's Empowerment Principles (WEPs) and are implementing them. The WEPs are a set of seven principles, which holistically address key issues in the workplace such as women's leadership, pay equity, gender-responsive supply chain practices and sexual harassment in the workplace. Implementing the WEPs can highlight hitherto underexplored areas for improving gender equality. For instance, an oft-neglected dimension of women's empowerment is procuring from women MSMEs. The tools offered by UN Global Compact and UN Women can allow companies to understand these gaps and take corrective action in a targeted and measurable way.

Second, CSR needs to be viewed beyond strategic philanthropy and utilised for value creation through conscious and considerable investments towards promoting gender equality. In 2019-20, out of the total CSR spend of ₹24,689 crore,₹688 crore went towards gender equality and women's empowerment, which is a mere 2.78 per cent. Stepping up strategic investments in women's empowerment is a win-win for communities and businesses.

Third, companies need to be prepared to report on their progress publicly. Consumers are increasingly demanding transparency in corporate practices. This requires that companies set clear targets and collect gender-specific data to track progress.

Fourth, inaction can be costly. Research by PwC shows that millennial women actively seek out companies that have strong records on diversity and inclusion. A Deloitte study shows that Gen Z, the first generation of consumers, who have not known a world without the internet, are less loyal to brands and extremely sensitive to the portrayal of gender stereotypes in marketing and advertising.

Further, Covid-19 has highlighted the need for urgent action. The pandemic and its necessary preventive measures are driving a disproportionate increase in women's unemployment (compared to men), decreasing their overall working time, while they are dealing with an aggravated care burden.

We all stand to benefit, if women are able to enter and stay in the workforce. Business can invest in developing women leaders, building gender-equal workplaces, eliminating the pay gap, engaging more women suppliers in their value chains, setting clear targets and reporting on them. India Inc's efforts will be crucial in our movement towards a gender-equal India and greater economic development for all. ◆

Celebrating Women's Day, Everyday

Implementing holistic actions will ensure that the rights of women are being respected and supported

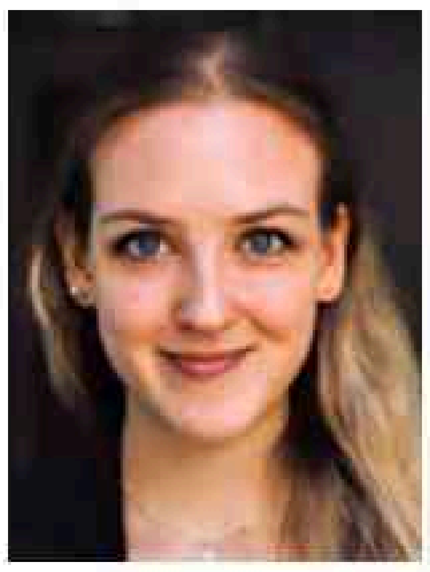
Every March, we celebrate International Women's Day. We march for women's rights. We attend a magnitude of events organised by a wide range of organisations. We see female profiles pop up in internal company newsletters. We hear companies' commitments to gender equality reiterated. However, halfway through the year corporate voices tend to be a lot quieter.

For the first time, women hold at least 30 per cent of seats on a majority of S&P 500 boards – a result of years of investor pressure and regulations requiring more gender diversity among corporate directors. However, the large minority of 249 companies still fall short. In Japan, the number of female executives rose nearly 60 per cent over two years through mid-2020. However, this rise adds up to a mere 8 per cent of board seats being held by women.

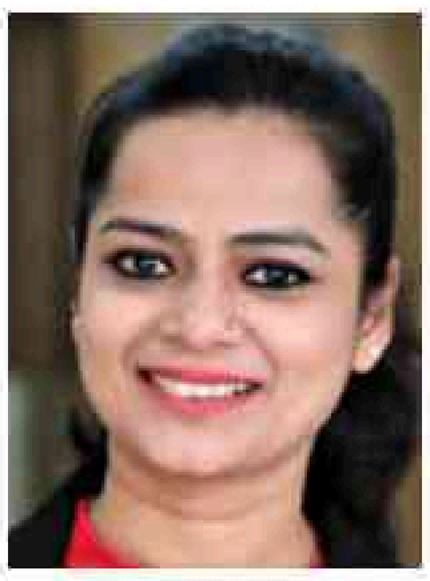
The good news is that business and government leaders across the globe agree that gender equality is a key priority for business and the future of work. It is not only a catalyst for sustainable and inclusive development but also a proven driver of enhanced business performance. In the latest survey of the UN Global Compact (UNGC), 82 per cent of companies indicate that 'gender equality is incorporated into their company's corporate sustainability strategy'. Data from the WEPs Gender Gap Analysis Tool shows that the number of Asian companies with an organisation-wide gender equality strategy continuously rose from 42 per cent in 2020 to 46 per cent in 2021. And according to the UN Global Compact's latest CEO study, 85 per cent of CEOs agreed that: "Women's participation and leadership in business is a critical driver of company performance."

Prioritising women's representation and leadership in business and setting concrete targets to achieve gender balance promises more than only financial returns. Research shows that companies with gender-inclusive leadership perform better on environmental, social and governance indicators. Thus, by doubling down on our efforts to advance women's business leadership we can transform corporate governance to better deliver for the SDGs.

The Global Compact is committed to mobilising participating companies to move beyond commitment and generate concrete outcomes for gender equality through the Target Gender Equality programme. This initiative is being implemented across all regions and supports companies in setting and meeting ambitious targets for women's representation and leadership. Initial results are promising as they show that over 80 per cent of participants have started drafting new targets or revising existing targets for their top management. Close to half of those are aiming for gender balance by 2025 – well ahead in time for the trickling effects to kick in to advance other SDGs ahead of the 2030 deadline.



ELISABETH ANNA RESCH



ANKITA KUMARI

Elisabeth Anna Resch, Global Lead, Target Gender Equality, UNGC
Ankita Kumari, Programme Lead, Target Gender Equality, GCNI

While Target Gender Equality has been designed with inputs from global experts, it is run in-country by Global Compact Local Networks, recognising that global challenges often require local solutions. The initiative's overarching aim is that companies don't only talk about gender equality but put truly holistic efforts behind it with overarching targets, and backed up with action plans and resourcing to bring plans to life. Therefore, it is equally encouraging that participating companies have identified hundreds of 'enabling actions' that they are planning to drive to meet targets: tackling the gender pay gap, creating data dashboards to increase tracking and accountability, addressing unconscious bias in hiring practices, scaling professional development opportunities, and extending parental leave policies.

Recognising these imperatives, every year around International Women's Day, UNGC India organises a multi-stakeholder dialogue called the 'Gender Equality Summit', a national platform which resonates the global commitment towards developing a strong Indian roadmap towards gender equality by discussing policies, leadership, gender-specific initiatives and technology. The summit calls for greater levels of coordinated involvement from governments, private sector, not-for-profits, and communities, as drivers and enablers of societal change.

Yet, at the current pace of change, it will take multiple generations to close the economic gender gap. In addition, the current pandemic is disproportionally affecting women and risks reversing the limited progress that has been made on women's rights. The pandemic, though, also provides a rare chance to disrupt gender stereotypes, show that leadership and decision-making should be guided by shared responsibilities, and build back more gender-inclusive policies and practices.

It will be a long time till we can celebrate records that truly reflect gender equality. But implementing holistic actions will ensure that the rights of women are being respected and supported – not only as lip service on International Women's Day, but as meaningful commitment every single day. ◆

Give them a fair chance

Only about 20 per cent of Indian women are employed

HINDUSTAN ZINC

Equal rights, equal opportunities

Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world as well. SDG-5 aims to grant the feminine gender equal rights and opportunities to live free without workplace discrimination or any violence.

The development of Goal 5 has had its share of challenges as faced in earlier situations. The transformed journey of women after the innovative 'Sakhi Project' of the HZL-Manjari team and the positive outcomes has been seen through this.

The Sakhi project is an outcome of consistent support, guidance and assistance. The Manjari Foundation believed in the fact that women have equal potential, which can now be witnessed in the Hurda village.

Before the Sakhi Project was implemented, the dependency of the women on the male counterparts was high. But it changed when the Sakhi magic began to work.

The actions of Sakhi comply with guidelines of UN Sustainable Development Goals. SDG-5 calls for clean water and sanitation for all people. Hindustan Zinc's constant involvement at grassroots levels was seen best by the residents of the village Hurda. Through constant guidance and motivation of women, HZL and Sakhi helped the women to stage a peaceful agitation, which sensitised the stake-holders of the legal system, to ensure the supply of portable drinking water to the residents of Hurda.

"I am not alone", says Ugma Devi, age 57, a member of the Jai Shree Ram SHG. A widow living in Hurda, she is supported by the self-help group. Another SHG member in Jai Singhpura village lost her husband in a road accident. The SHG came to her support and took care of her.

सखी उड़ान फेडरेशन के
हुरड़ा ग्राम में
लक्ष्य, संघर्ष व ज्ञा
ग्राम संगठन द्वारा आयो
लघु रक्तदान शि
दिनांक : 2 जुलाई 2020 शु
स्थान : बस स्टेण्ड, हुरड़

HZL-Manjari team's Sakhi project transforms the lives of women

"You don't have to be a doctor to save lives" – the saying has been proved by the Sakhi women, who saved the lives of people by donating blood. Also, the integrated efforts of people to combat the Covid-19 pandemic was visible everywhere. From an immunity booster, *kaada,* to sanitisers, many requirements of the new normal life after Covid-19 were provided by the Sakhi women. The Sakhi Food Bank was also created during this pandemic.

Working wonders According to Vijay Shree, age 27, Radhey Govind SHG, the change in the mindset of the villagers of Hurda is the outcome of the efforts of the Sakhi Project. It reinforced the belief that co-operation and self-help can work wonders!

Sumitra Vaishnav, age 25, a resident of village Chachiya, Ajmer district, Rajasthan, is a beneficiary of Sakhi Project, implemented by Manjari Foundation and supported by Hindustan Zinc. Sumitra couldn't pursue her education beyond standard VII. She got married at an age of 19, when her husband was not even in a position to support the family. Her father-in-law had died 25 years ago and her mother-in-law used to support the family, working as a labourer. The meagre cash inflow was not sufficient to support the family even for basic necessities.

In 2017, the Sakhi Project brought rays of hope. Community resource persons (CRP) from Dholpur visited the area and tried to engage the women residents of the village by guiding them on the Sakhi project. They briefed the women residents of the area regarding the functioning, rules and regulations of women-led institutions.

The effort won the confidence of the women, which led to the creation of self help groups in the village. Sumitra became a member of Balaji Self Help Group. "I joined the SHG, but some people were not happy with my decision," says Sumitra. "My mother-in-law was the first to come to my support. Trust-building took time, but it happened. I started a stationary and fancy store, selling clothes, footwear, stationary, women's cosmetics and other items. Its current valuation comes to ₹2.5 lakh. I have taken a loan of ₹1.5 lakh from the SHG. Today, my average daily sale comes to ₹1,000, which ensures a profit of ₹200-250."

From a situation when the family was striving hard to support themselves with one meal a day, to a state of self-reliance, the journey was momentous. And, it reveals the impact of the Sakhi project at the grassroots level.

Sushila Salvi, age 33, too moved up the SHG way. Hailing from Kharata village, in Chittorgarh district of Rajasthan, she belonged to the scheduled caste. Her marriage at the age of 17 curtailed her education to Standard VIII. Her husband used to earn about ₹8,000 a month, as an auto mechanic – quite insufficient for the family to survive in today's world. So, Sushila followed the Sakhi initiative, leading to the remarkable transformation.

Sakhi Project had become active in the area in 2017. The Sakhi Team approached her and guided her on various aspects of 'self help'. "This move resolved the family's financial issues and we were no longer required to seek the money lender's assistance," says Sushila. She took a loan to purchase a four-wheeler, which is used as a taxi by a member of the family to augment the family's income. From an earning of ₹8,000 per month to an inflow of ₹20,000 today, the progress speaks volumes about the evolution of Sushila.

"I am grateful to Sakhi and HZL-Manjari team for all the support," Sushila says. She now aspires to educate the children and achieve financial independence. "Come out. Grab the chance Sakhi is offering," she exhorts. "Yes, you can." The rise of Sushila is indeed inspiring! ◆

RENEW POWER

Renewing a pledge

ReNew
International Women's Day
अंतरराष्ट्रीय महिला दिवस
Generation Equality

Project ReWIN was conceptualised to empower women in the neighbourhood community

Women participation in the Indian workforce is considered to be amongst the lowest in the world. Only about 20 per cent of Indian women are employed. The pandemic has further exacerbated this. Inadequate access to economic activities has been the primary driver for the low resilience quotient and prevailing social discrimination among women, especially in the rural areas.

ReNew Power's leadership has always espoused gender equality in operations, and social responsibility in the Indian corporate ecosystem. As a practitioner of inclusive growth, ReNew Power wanted to empower the last mile women as well. While engaging with the local community of Jath (Maharashtra), where ReNew Power's wind project was underway, the ReNew team observed the economic divide that disenfranchised the women of the area. With the objective to empower the women in the neighbourhood community, project ReWIN was conceptualised.

The first phase of the project was launched in Jath, near Sangli in Maharashtra in 2016, to support a network of rural women entrepreneurs to scale up their small businesses to become self-sustainable pillars within their communities. ReNew partnered with a local NGO to facilitate the identification and formation of Self-Help Groups (SHGs) and to setup a Community Revolving Fund to enable better financial access for these women.

In 2018, after seeing the success of the programme, a large-scale Entrepreneurship Development (ED) project was implemented. In this phase, a pool of 200 women underwent the ED training over a period of one year. At the end of the tenure, a group of six women entrepreneurs were seeded by ReNew Power to scale up their businesses.

Business plan As part of their capacity building, the women trainees were allowed to interact with successful women business leaders and institutions. A business plan presentation ceremony was organised for the final six entrepreneurs at the second Gender Equality Summit at New Delhi.

In 2019, when the pandemic disrupted livelihood options for rural communities, the ReWIN team entered into a partnership with the Uttar Pradesh government to set up a mask manufacturing unit in different clusters in Lucknow that employed 200 women from underserved backgrounds.

Since the inception of the programme, ReNew Power has directed CSR grants of close to ₹2 crore towards this project. The financially innovative model of a revolving grant fund has proved to be extremely successful. For example, it is self-sustaining and does not require fresh grants; there has been a greater impact as compared to the conventional grant mechanism and high scalability and replicability of the model have been reported

However, with the prevalent socio-cultural norms deeply rooted in patriarchy across rural communities, women were conditioned to stay indoors, to take care of domestic responsibilities and entrepreneurship was perceived as a man's domain. The primary challenge was to change this mindset.

Community mobilisation has been deployed as an intensive on-field exercise before commencing the project. As the initiative is being scaled across geographies, the ReWIN team made an effort to mobilise the community towards the outcomes of the project before beginning to engage with women entrepreneurs specifically.

ReNew Power follows stringent due diligence process for onboarding on-ground NGO partners to ensure that the needs of the community are understood and the programme activities are executed in an outcome-focused manner.

In the first phase of the project, around 300 SHG members got engaged in income-generating activities at the individual level and also created an alternate source of income for their families. The programme also helped members to gain the confidence to participate in the decision-making process at the family and community level.

In the second phase, a pool of 200 women underwent the Entrepreneurship Development training over a period of one year. Their business plan was evaluated by a jury of eminent social leaders and representatives of financial institutions and six winners received ₹1,00,000 seed funding from ReNew Power to scale up their business. A total of 21 entrepreneurs are being mentored continuously with an aim to create model entrepreneurs within the community who can help other women access livelihood opportunities.

As part of the mask-making initiative with the UP government, ₹25 lakh worth of profits have been distributed across 200 women from this endeavour.

ReNew will continue to mentor these women over a period of two years as they scale up their businesses. It is expected that beneficiaries would reach breakeven point by the end of year three and would also create local employment opportunities for their peers. In 2021, the programme was scaled in the states of Rajasthan, Gujarat, Andhra Pradesh, Karnataka and Uttar Pradesh. The vision is to have 100 women-led enterprises that are supported by ReNew Power by 2026 with over 1,00,000 women exposed towards entrepreneurial avenues. ◆

MSPL LIMITED

A stitch in time!

Mahatma Gandhi believed in the economic empowerment and self-reliance of communities and considered women to be pivotal in achieving these goals. When the economic condition of a woman improves, she plays a more decisive role in shaping not just her family but also society. Inspired by the teachings and ideas of Gandhiji, Baldota Group via its flagship company MSPL Ltd has undertaken numerous women-centric programmes in the last 60 years.

MSPl's Tailoring Training Programme: making a social as well as economic impact

MSPL's participatory approach towards empowering people is by promoting sustainable livelihood initiatives through community-based institutions and enhancing their management skills and resources to improve their employability and socio-economic status. One such initiative is the Tailoring Training programme being spearheaded by the company. The objective is to provide an employable skill to rural women. This programme dovetails with a number of UN SDGs: no poverty; gender equality; decent work & economic growth.

MSPL has set up six Tailoring Training Centres in rural Karnataka in partnership with local Self Help Groups (SHGs), panchayats and NGOs. While SHGs and NGOs create awareness and facilitate enrolment for the training programmes, the panchayats provide their premises for setting up the training centres and enable linkage with local garment industries. Other entities of the Baldota Group also provide need-based support, thereby creating synergies.

Each centre accommodates 20-40 women per batch and each batch runs for six months. Upon successful completion, each participant receives a certificate. The participants are then either aided with a sewing machine or a sewing kit or provided financial support to start their stitching business through SHGs.

Motivating the participants The programme is not conducted as an off-the-shelf solution but is provided as a custom-designed training programme depending upon the needs and competencies of the individual participants. MSPL motivates the participants to learn advanced skills like embroidery and the latest patterns trending in fashion. It also provides refresher training for trained women to enhance their skills as per market requirements.

An innovative aspect of the programme is that the Centre goes to the women instead of expecting the women to travel long distances and reach it. In the last 10 years, MSPL has set up the centres at 14 village locations and seven city locations.

While the tailoring training programme was well received from day one, MSPL's CSR team faced several systemic issues and challenges. Although the course is only six months long and is held in the nearby vicinity of the participating women, it was still difficult to ensure attendance because these women had other responsibilities at home or at the farm. As the basic education level is low, it was a challenge for these rural women to understand some of the tailoring concepts.

The CSR team at MSPL has worked diligently over the years to address these issues – from coordinating with the panchayats and NGOs to create awareness and ensure attendance, to providing aid in the form of free sewing machines or sewing kits and helping women access to finance via SHGs.

The Tailoring Training Programme has had a deep social as well as economic impact on the stakeholders. The courses have enabled women to earn anywhere from ₹6,000 to ₹8,000 per month, resulting in a surge in their household income by 33 to 40 per cent. Women have not only been empowered but they have also found their voice, faced fewer gender discrimination instances and have earned the respect of their life partners.

MSPL has invested more than ₹70 lakh during the last 10 years for the Tailoring Training Project. The company plans to scale up this programme by joining hands with the garment industry and district industry centre. This will create a win-win opportunity for the industry, the women beneficiaries and the community as a whole. Women entrepreneurs will have access to new markets and will be able to tap new opportunities to showcase their skills. ◆

NIPPON PAINT

Painting a perfect picture

Nippon Paint's nshakti initiative provides training to women in professional wall painting

In India, women's participation in the workforce has decreased dramatically during the previous two decades. According to the World Bank, India's female labour force participation percentage has declined from 26 per cent in 2005 to 20.3 per cent in 2019. Women's socio-economic and cultural restraints, and their limited career opportunities have had a multi-sectional and negative impact on their growth. Though we are well into the 21st century, there are still many professions dominated by men. Examples include professional wall painting and working on the shop floor of manufacturing companies. Businesses can play a significant role in changing that. Companies like Nippon Paint India are empowering underprivileged women by creating new job avenues for them, thereby helping them with financial independence.

Nshakti initiative Nippon Paint's nshakti initiative, which places empowerment tools in the hands of rural women, is a visionary feat. This initiative is in line with Nippon Paint's commitment to the UN's SDGs. The first of its kind nshakti programme, which began in 2018, encourages and empowers underprivileged women by providing extensive training in professional wall painting. The training provided by Nippon Paint experts provides them with the necessary skills to meet market requirements and more. These women are certified as professional wall painters after completing the training.

Apart from training these women, Nippon Paint's initiative ensures they have job opportunities by putting them in the right places. These opportunities allow them to be self-sufficient, create a source of income, and get back on their feet. The nshakti initiative's training has impacted over 550 women in Tamil Nadu alone who have worked in over 80 sites. These women belong to tiny districts/towns from Tamil Nadu, including Mayiladuthurai, Ocheri, Ramasamypatti, and Anaimalai. Moreover, ten of these painters have gone on to become painting contractors. These women painters went on to paint homes, schools, and offices in their own villages and the neighbouring areas.

Expert trainers from Nippon Paint's PROceed training academy prepare the women trainees to become qualified professional wall painters. The 'nshakti' professional training takes place over a 12-day period, during which the women trainees are exposed to a comprehensive curriculum designed to meet current industry demands. The women painters receive a professional certificate after successfully completing the programme, certifying them as professional wall painters. Women painters are introduced to Nippon Paint dealers and other decision-makers, such as interior designers and architects, who can provide painting jobs to help them further their careers. These women painters continue to collaborate on various projects with the help of Nippon Paint's CSR team.

Nippon Paint recently signed a Memorandum of Understanding (MoU) with the Rotary Club of Madras East (RCME) with the goal of training 1,000 unskilled, underprivileged women in Chennai to become professional painters.

The nshakti initiative by Nippon Paint also received a great deal of support and appreciation from the Skill India mission 2018 and won awards for creating impact and pioneering a new employment opportunity for underprivileged women. The nshakti initiative will be soon extended to small towns/cities across more Indian states.

In this respect, Nippon Paint has been very keen on reaching out to marginalised communities through its various CSR initiatives. For instance, Nippon Paint has helped over 20,300 painters achieve the RPL (Recognition of Prior Learning) certification under the TNSDC (Tamil Nadu Skill Development Corporation) scheme. ◆

UTKARSH WELFARE FOUNDATION

Transformative change

The existing entrepreneurial environment views women entrepreneurship as a potential driver of socio-economic change, capable of fuelling the hyper-local economy in rural India. However, women especially in the rural areas still face multiple social and economic barriers which further limit their entrepreneurial potential.

Utkarsh Welfare Foundation (UWF), a subsidiary of Utkarsh CoreInvest Limited, aims to create a meaningful and sustainable impact in the community through designing and refining existing solutions. The interventions of the foundation have been centred around empowering the grassroots population especially women by making them self-reliant and transforming them into successful entrepreneurs.

Women-owned microenterprises face various constraints related to limited access to equity and loan funds coupled with the limited capacity of the entrepreneurs to manage these due to which they continue to remain small. They are mostly present in the informal economy, exposed to a high level of gender disparity and unfavourable terms and conditions of trade. Positioned at the bottom of the supply/value chain pyramid, often, their work and contribution are invisible to the economy and its players.

Holistic development As part of the organisation's commitment to promoting holistic development through inclusive growth, UWF is driving numerous interventions in the areas of skill and enterprise development with a special focus on women micro-entrepreneurs. The efforts of the organisation have been further strengthened through partnerships with multiple sector leaders of national and international repute such as Small Industries Development Bank (SIDBI) and Department for International Development (DFID, UK Government), ACCION, International Finance Corporation, United Nations Development Programme (UNDP), etc.

A pilot project on Women's Entrepreneurship Empowerment (WEE) was implemented by Utkarsh Welfare Foundation. It aimed at providing end to end business development services to around 9,000 women entrepreneurs in Varanasi and Ghazipur districts of Uttar Pradesh. It included capacity building training on business management, access to appropriate credit and linkages with formal financial institutions, facilitating new market and buyers' interactions, and providing intensive handholding support for establishing and up-scaling the micro-enterprises. For better synergy and project outcomes, a partnership and multi-stakeholder approach was adopted for the pilot project. The objective was to create opportunities for scale-up, diversification and set-up of new micro-enterprises.

Under the project, women entrepreneurs were onboarded after a two-stage rigorous screening process. The programme screened the entrepreneurs using screening tools and guidelines. The tools applied a gender lens to select entrepreneurs based on their role, time investment and existing knowledge. These women-led enterprises were further supported under the project with relevant skills, vocational training, credit and market linkages and intensive handholding support. All the onboarded women entrepreneurs received a total of twelve hours of enterprise development training. Extensive handholding support through various market linkage and exposure activities such as buyers-sellers meet, exposure visits to wholesale markets and trade fairs was undertaken. As a part of the skill-building and market linkage initiative, Swavalamban Utsav – Pragati ki Udaan – trade fair was organised for women leaders and entrepreneurs for two days.

During impact assessment done through an external agency, it was discovered that there was a favourable shift in the distribution of Poverty Probability Index (PPI) scores. Some of the key indicators which have shown consistent performance by women entrepreneurs have been through active participation, investments, revenue cost and profits over the period, stock inventory management practices, cash management, procurement, customer footfall, record keeping and quality of services.

UWF aims to create women micro-entrepreneurs

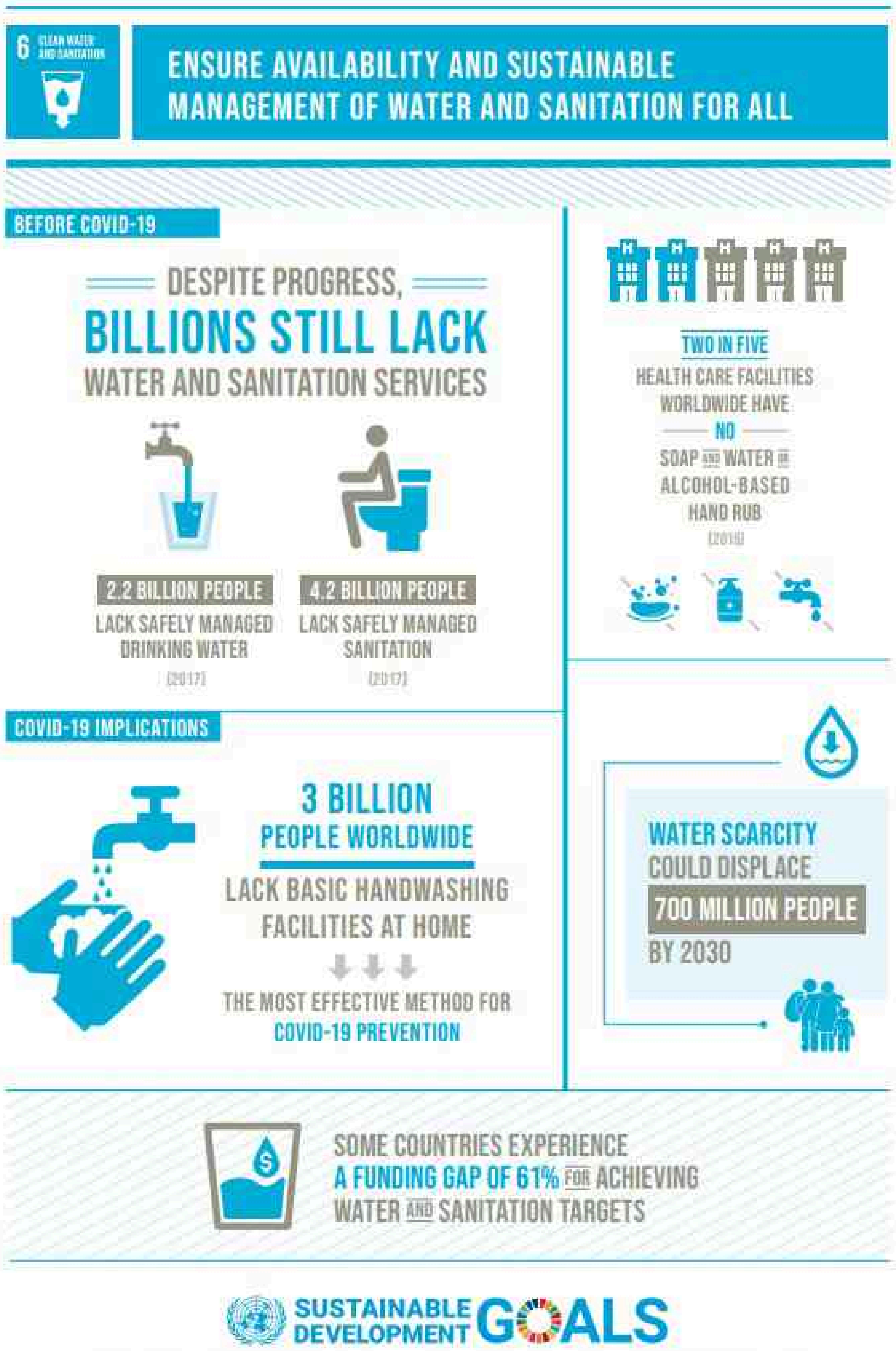
Further, the Covid-19 pandemic created inevitable economic slowdown and social disruptions largely on the lower-income and underprivileged sections of the society that aggravated their already dilapidated situation. UWF redesigned and redefined its priorities to support women micro-entrepreneurs whose business setups got derailed as a negative effect of the pandemic. Utkarsh Welfare Foundation in partnership with Utkarsh Small Finance Bank Limited (USFBL), UNDP and Uttar Pradesh State Rural Livelihood Mission envisioned and designed intensive and result-based programmes.

Since the vitality of migrant workers is integral to the economic prosperity of India, an urgent response was conceptualised to create a supportive ecosystem focused on economic recovery and resilience of marginalised communities impacted by Covid-19. To further ameliorate the impact of Covid-19 on the non-farm sector, collectivisation of fragmented artisan weavers was done to reengineer the existing value chain. This was facilitated by UWF through formation of Sangharsh Textile Weaver Producer Company. This producer company was incorporated with a vision to extend better bargaining power to the primary producers/weaver community and to create the economies of scale. The Artisan Producer Company has been registered under the Companies Act 2013 and has a membership base of 500 weavers. ◆

CLEAN WATER AND SANITATION
SNAPSHOT

Goal: Ensure availability and sustainable management of water and sanitation for all

SANJAY BORADE



ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

BEFORE COVID-19

DESPITE PROGRESS,
BILLIONS STILL LACK
WATER AND SANITATION SERVICES

2.2 BILLION PEOPLE LACK SAFELY MANAGED DRINKING WATER (2017)

4.2 BILLION PEOPLE LACK SAFELY MANAGED SANITATION (2017)

TWO IN FIVE HEALTH CARE FACILITIES WORLDWIDE HAVE NO SOAP AND WATER OR ALCOHOL-BASED HAND RUB (2016)

COVID-19 IMPLICATIONS

3 BILLION PEOPLE WORLDWIDE LACK BASIC HANDWASHING FACILITIES AT HOME

THE MOST EFFECTIVE METHOD FOR COVID-19 PREVENTION

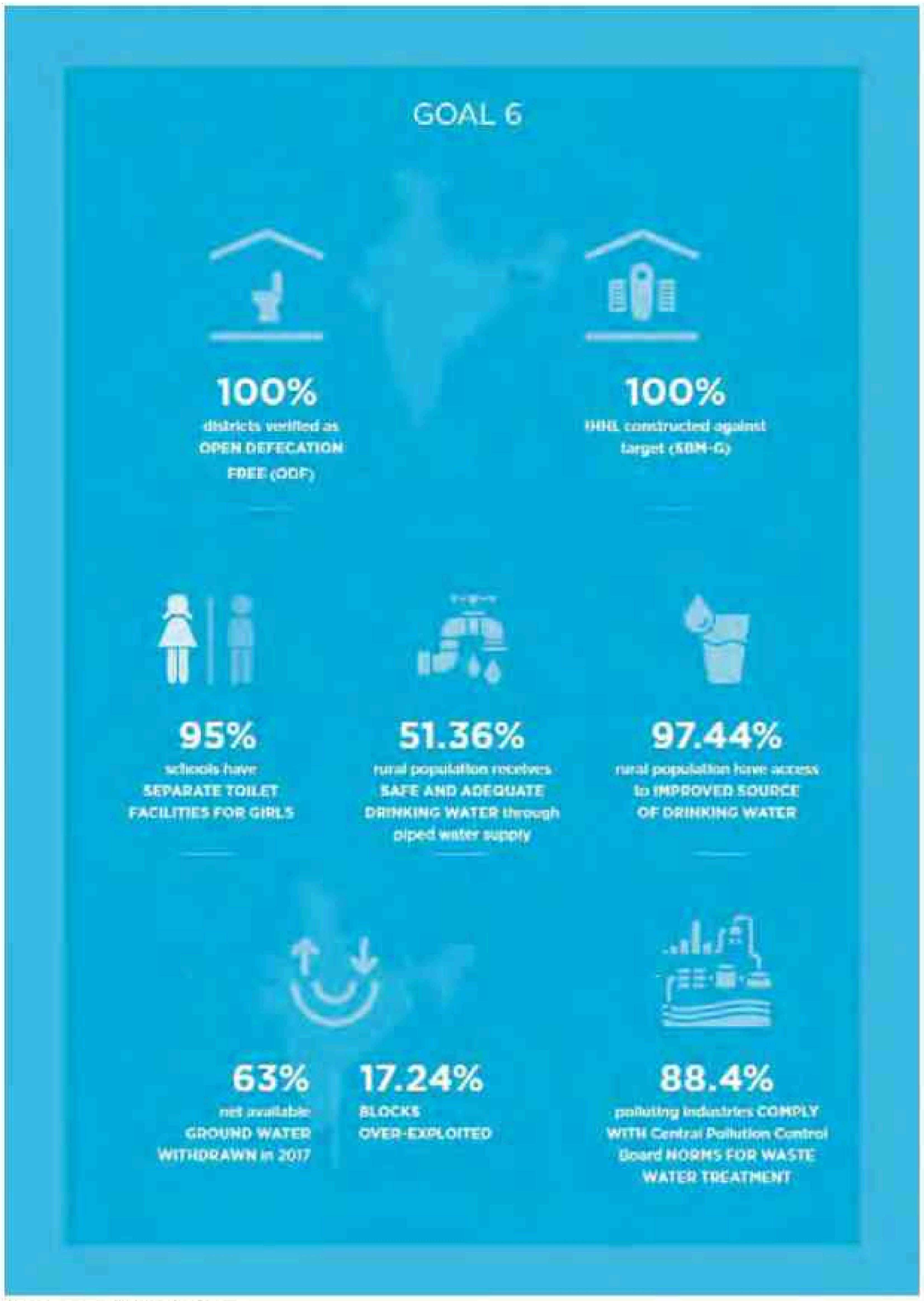
WATER SCARCITY COULD DISPLACE **700 MILLION PEOPLE** BY 2030

SOME COUNTRIES EXPERIENCE A FUNDING GAP OF 61% FOR ACHIEVING WATER AND SANITATION TARGETS

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 6

100% districts verified as **OPEN DEFECATION FREE (ODF)**

100% IHHL constructed against target (SBM-G)

95% schools have **SEPARATE TOILET FACILITIES FOR GIRLS**

51.36% rural population receives **SAFE AND ADEQUATE DRINKING WATER** through piped water supply

97.44% rural population have access to **IMPROVED SOURCE OF DRINKING WATER**

63% net available **GROUND WATER WITHDRAWN** in 2017

17.24% **BLOCKS OVER-EXPLOITED**

88.4% polluting industries **COMPLY WITH** Central Pollution Control Board **NORMS FOR WASTE WATER TREATMENT**

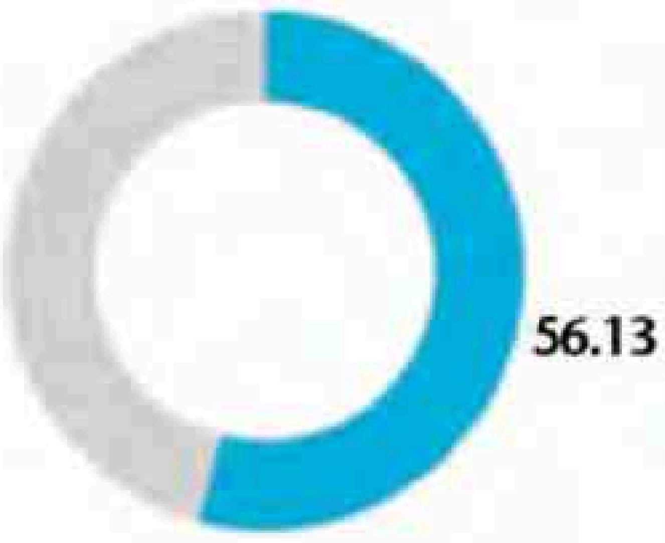
Source: NITI Aayog

6 CLEAN WATER AND SANITATION

Country Rank

125/165

Score



UN Dashboard Status

Major challenges 🔴

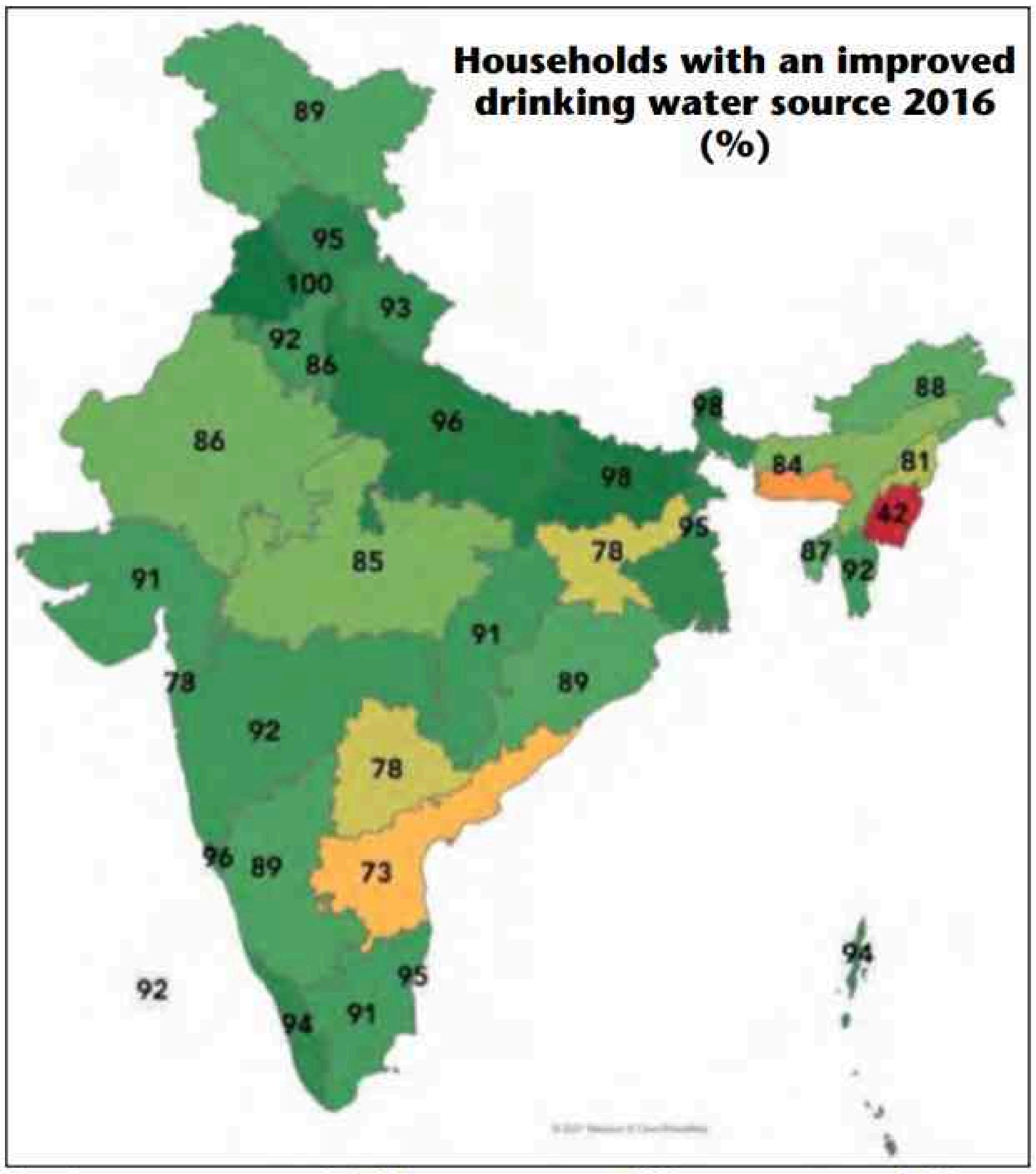
Trend

On track or maintaining SDG achievement ↑

Among the 17 SDGs, for India, Clean Water and Sanitation is one of the focus areas on track to achieve its SDG targets, despite significant challenges remaining. Some of the targets India has identified in this area are:

- Achieve universal and equitable access to safe and affordable drinking water for all
- Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- Improve water quality by reducing pollution, eliminating dumping, and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
- Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
- Implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- Protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes
- Expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
- Support and strengthen the participation of local communities in improving water and sanitation management

Clean water is one of the basic life needs, and access to drinking water is an essential resource. Ensuring an improved source of drinking could mean having piped water, public taps, standpipes, tube wells, boreholes, protected dug wells and springs, rainwater, and community reverse osmosis (RO) plants.


Households with an improved drinking water source 2016 (%)

The National Family and Health Survey conducted in 2016 shows that 90 per cent of households in India have access to improved drinking water, with Chandigarh and Punjab having the best access to drinking water at 100 per cent and 99 per cent, respectively. North-eastern India, however, is lagging behind, with only 42 per cent of households in Manipur receiving drinking water.

While access to drinking water is a priority, ensuring safe drinking water is also crucial. The UN looks at drinking water on a ladder, with levels for safely managed water, basic water, unimproved, and surface water. In recent years, India has shown steady improvement in access to basic and safely managed drinking water, covering 91 per cent of households in 2018 from 80 per cent in the early 2000s, as per reports from the WHO/UNICEF Joint Monitoring Programme for Water Supply.

Groundwater exploitation and contamination

Access to safe drinking water is affected by the groundwater available in the region. The Ministry of Jal Shakti and NITI Aayog reports show that groundwater is well managed across most of India, with only 17 per cent of India's groundwater assessment units being over-exploited, of which 5 per cent are critically impacted exploited. Groundwater is predominantly over-exploited in the Northwestern belt with Punjab ranking the worst with groundwater in 78.99 per cent of its blocks exploited, followed by Rajasthan and Haryana at 62.71 per cent and 60.94 per cent respectively.

When looking at the percentage of groundwater withdrawal, entire western India shows extremely high groundwater withdrawal against availability, while the Northeast, in contrast, has well-managed water withdrawal. Once again Punjab's performance is the worst at 165.8 per cent of groundwater withdrawn. These are ominous signs for a primarily agrarian state.

Numerous factors determine the usability of groundwater, with two predominant factors being water salinity and nitrate content.

High salinity in groundwater results from natural geological phenomena. In India, the number of districts with highly saline water has fluctuated in the last two decades. As per 2017 data, 194 districts had groundwater with salinity above the permissible limit.

In the case of nitrate levels, however, there has been a steady decline. Nitrate contamination is due to activities like mining, disposal of industrial wastes, and untreated domestic wastes. In 2000, 409 districts were identified to have excess nitrates in their groundwater. By 2017, this number was at 414, despite reaching 510 in 2016. Overall, groundwater quality has depleted from 2000 to 2017.

Sanitation

Improved sanitation is a major determining factor in the quality of life and should be ensured to prevent the spread of illness. Improved sanitation includes any non-shared toilet. As of 2016, it was found that 48 per cent of households had access to improved sanitation, with Lakshadweep and Kerala having the largest per cent of improved sanitation facilities at 99 per cent and 98 per cent, respectively. In general, large parts of Northern India fared well, while states like Bihar and Jharkhand showed the lowest rates of improved sanitation at 25 per cent and 24 per cent respectively.

While there has been an improvement in the availability of sanitation facilities across the nation, it has taken nearly two decades to reach the current status, and that too not without shortcomings. The WHO and UNICEF Joint Monitoring Programme (JMP) assess water supply and sanitation on a ladder scale with five levels - Safely Managed, Basic, Limited, Unimproved, and Open Defecation. Since 2000, the number of safely managed sanitation facilities has increased by 39 per cent, and open defecation has decreased by 59 per cent, which are promising signs.

Other promising signs of improvement in sanitation include the current state of functional toilets for girls in schools. Out of India's 28 states and 8 Union Territories, only four fall below the 75 per cent mark, with over 90 per cent of schools in 26 states/UTs having functional toilet facilities for girls, with Lakshadweep and Chandigarh leading at 100 per cent and 99.5 per cent, respectively. Manipur and Meghalaya are the worst at 70.71 per cent and 66.97 per cent respectively. In addition, the presence of separate toilets and menstrual hygiene management facilities can help girls stay in school and reduce dropouts, further reducing the risk of early marriage and pregnancy.

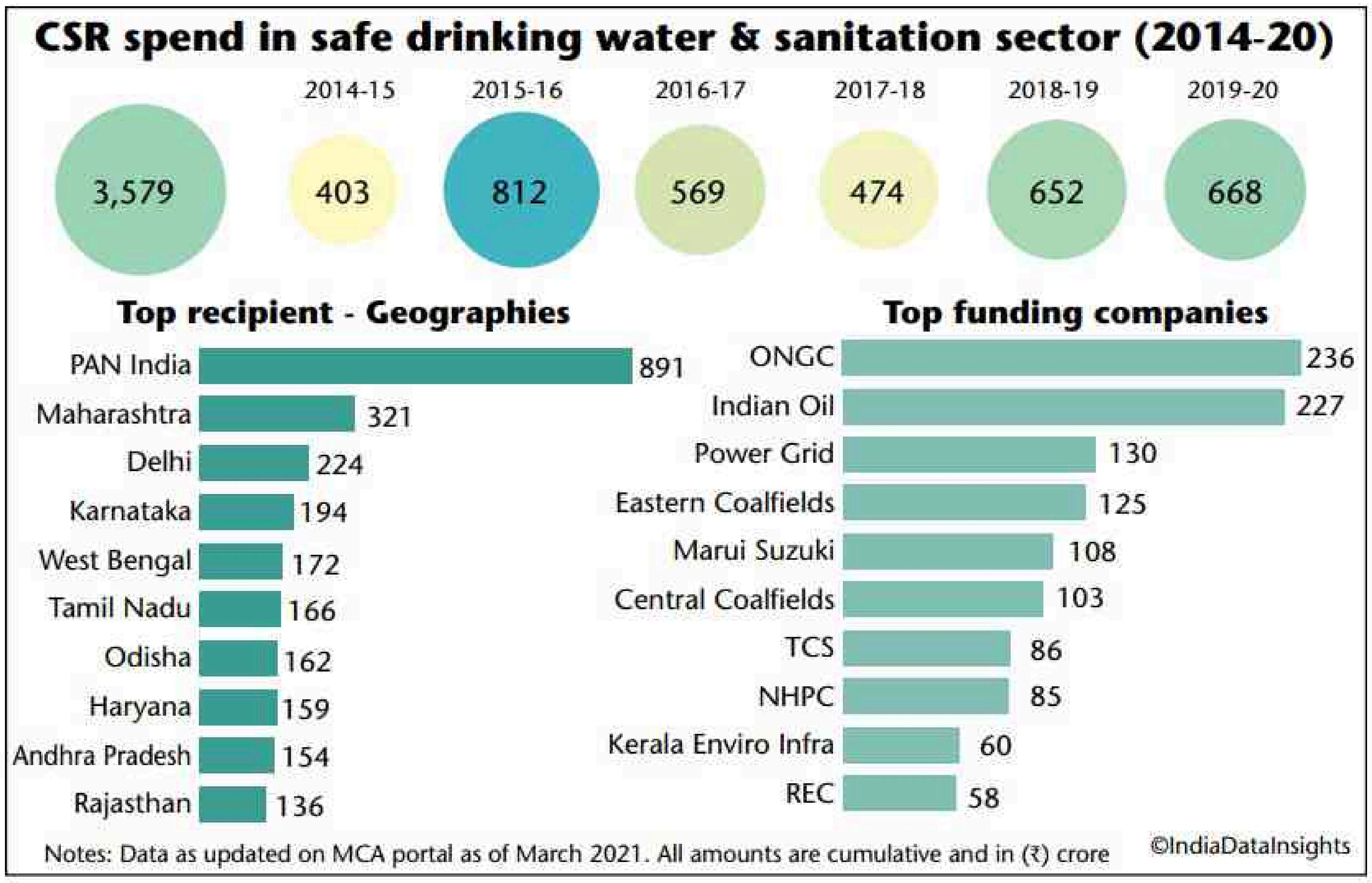
Similar to sanitation facilities, solid waste management in the country has also seen a drastic improvement from 2016 to 2018. Solid waste management has improved over 100 per cent from 2016 to 2018, and 50 per cent of the solid waste is now processed compared to the 21.5 per cent in 2016. In terms of the percentage of waste processed of the total waste generated, Chhattisgarh ranks the highest at 84 per cent, while Mizoram and West Bengal rank the lowest with 4 per cent and 5 per cent respectively.

Improved toilet facilities, sanitation, waste management, and drinking water facilities contribute towards attaining the clean water and sanitation goal. Towards this effort, the facilities enabled by the union budget play a significant role. The Department of Drinking Water and Sanitation budget grew nearly 10X from 2010 to 2016, from ₹1,600 crores to ₹15,343 crores. Thereafter, there has been a drastic decline to ₹9,994 crores in 2020. The rate of utilization has also reached its lowest in the last decade, dropping to 60 per cent.

Schools with separate functional toilet facility for girls (2020) (per cent)

Lakshadweep	100.00
Kerala	98.77
Jharkhand	96.62
Chandigarh	99.56
West Bengal	98.68
Andaman & Nicobar	99.52
Punjab	99.24
Goa	99.19
Gujarat	96.53
Karnataka	96.61
Puducherry	96.49
Tamil Nadu	98.97
HImachal Pradesh	97.97
Bihar	97.70
Uttar Pradesh	96.01
Daman & Diu	95.62
Bihar	97.70
Haryana	95.55
Madhya Pradesh	93.58
Telangana	92.03
Rajasthan	90.64
Uttarakhand	90.44
Nagaland	89.92
Maharashtra	92.90
Sikkim	92.80
Chhattisgarh	92.65
Mizoram	89.42
Ladakh	86.62
Odisha	83.34
Delhi	83.40
J&K	83.30
Assam	79.40
Tripura	76.82
Arunachal Pradesh	74.74
Andhra Pradesh	71.08
Manipur	70.71
Meghalaya	66.97

CORPORATE CONTRIBUTION


CSR spend in safe drinking water & sanitation sector (2014-20)

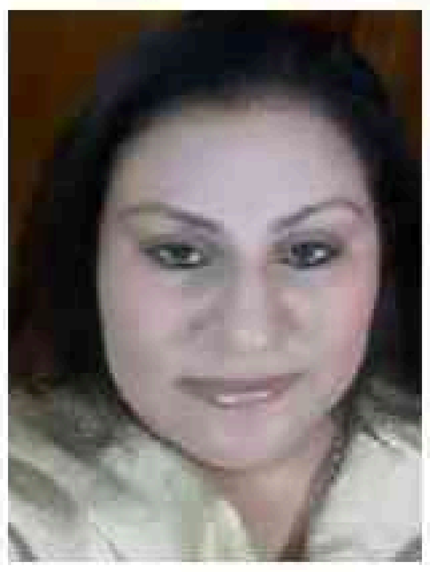
Notes: Data as updated on MCA portal as of March 2021. All amounts are cumulative and in (₹) crore

©IndiaDataInsights

Indian corporates have contributed ₹3,579 crores to Safe Drinking Water and Sanitation programmes since 2014. The contribution witnessed a fair bit of fluctuation from 2014 to 2018. Post 2018, it showed consistent growth. The sector has showcased 65 per cent increase in spend over the past 6 years. ONGC and Indian Oil Corporation contributed ₹463 crores (~12 per cent of the entire CSR spend) to the sector. The next 3 corporate contributors are Power Grid Corporation of India, Eastern Coalfields, and Maruti Suzuki. Maharashtra received the largest investment at ₹321 crores, followed by Delhi, Karnataka, West Bengal, and Tamil Nadu.

Reality or chimera?

Achievement of SDG-6 requires massive commitments from governments as well as businesses



SHWETA TYAGI

There is no denying that the world has been turned upside down by the pandemic, and that includes our way of doing business. As a global community, we must work together to build a better, more sustainable future and make that our new normal. Corporations can and should lead the way by changing how businesses operate as it can have the most significant impact. Businesses, investors, civil society organisations, international development networks, and national governments must collaboratively approach and contribute to solutions that can help achieve the 17 SDGs by 2030. Waiting around is not an option.

Currently, 844 million people globally are living without access to clean water, while a staggering 2.3 billion are without access to a decent toilet. In addition, 2.1 billion people worldwide lack access to safe, readily available water at home, and 4.5 billion lacks safely managed sanitation. It is projected that two-thirds of the world's population will be living in water-stressed areas by 2025, a problem pandemic, climate change, and population growth will only exacerbate.

Achievement of SDG-6 requires massive commitments from governments as well as businesses. The business community must be at the heart of the solution. Corporations are impacted and directly impact water resource quality through their activities, primarily through water consumption and discharge into natural water resources. In water-stressed areas, these impacts are more acutely seen and felt. According to UNGC, 90 per cent of water consumed in the world today is used for agricultural or industrial purposes, highlighting the crucial role that businesses must play in promoting the responsible use and effective governance of global water resources. It is estimated that to achieve SDG targets related to water and sanitation, annual investment as high as $45 billion is required and a significant portion is expected to come from the private sector.

Businesses need to understand the impact of their activities on the local ecosystems and communities and take actions for sustainable use of water resources. Disclosure on water consumption unlocks the power of corporate action to address our water challenges. We have seen that year-on-year, more companies are showing initiatives in improving water use efficiency, water quality, water ecosystems and Water, Sanitation and Hygiene (WASH) services. This will help improve collaborations with governments, businesses, NGOs, and communities to devise strategies and programmes and make a huge difference in achieving SDG-6.

India has more to gain from achieving the SDG goals, especially SDG-6. This is due to water's cross-cutting nature in achieving other goals. People in India are already experiencing effects of the climate crisis. The country faces more extreme events than the global average, which causes huge human and financial losses. Hence, businesses in India have a critical role to play in transforming the country to be more sustainable and also to build India's competitiveness and inclusivity. They need to focus on opportunities to provide a low-carbon environment for growth that helps secure resilient livelihoods and profits. Companies that prioritise India's sustainable development in their growth strategies stand to benefit in the coming decade.

Key challenges: Many businesses integrate SDGs as a way to improve their brand reputation. However, recently there have been many corporations pursuing SDGs as a strategic agenda. But there are some barriers and challenges that need to be addressed to have more involved and collective integration of SDGs, especially SDG-6 by corporations in India. These include:

Understanding: Although many corporate leaders have shown interest towards implementation of sustainable development initiatives, there is still lack of proactive action. This is primarily due to lack of understanding about the long-term benefits of SDG implementation in business activities.

Financing: There is a huge financial gap in integrating SDGs in the business models, particularly in India. Many corporations do not get opportunities for private-public financing collaborations primarily due to policy constraints. Thus, it becomes a substantial barrier for businesses to invest in sustainability initiatives. This can be overcome with proper collaborations between the government and corporations.

Mechanisms: There are many mechanisms available for supporting sustainable development initiatives, but the challenge lies in leveraging these options, accelerating cost reductions, and achieving meaningful changes. There is a need to integrate these mechanisms along coherent development paths that respond to specific local and sectoral needs, provide incentives and mechanisms for rapid innovation, diffusions, and knowledge-sharing.

The author is Chief Functionary, India Water Foundation

Success factor: Businesses should build on responsible business practices and take active steps to understand and respond to the impact of their end-to-end operations on water resources and communities. They can do so by implementing water stewardship plans developed in consultation with other water users. This can help to connect business strategies with global priorities and help businesses to show how they can help advance sustainable development, both by minimising negative impact and maximising positive impact on people and the planet. Businesses can use the SDGs as a framework to shape and guide their strategies, goals, and activities, allowing them to capitalise on a range of benefits.

Some of the factors that corporations can use to achieve SDG-6 are:

Holistic water strategies: Corporations can play an important role in protecting water resources around their end-to-end operations. They should assess, monitor, and report water usage and develop strategies to improve local water resources by investing in programmes to support responsible water use. Businesses can also collaborate in Integrated Water Resource Management plans by governments and respond to aggregate impacts on shared water resources.

Protect water ecosystems: Businesses should respect environmental laws governing the protection of ecosystems that may be harmed as a result of their operations. They should take responsibility to protect and/or restore natural water resources so that quality water is available to all stakeholders in the watersheds around their end-to-end operations.

Collaborations: Corporations can lead collaborations with governments, industry, and civil society to devise strategies and programmes on WASH services. Collaboration is vital, both within sectors and across different industries. This can be done by addressing joint local impacts, sharing knowledge, technologies, and infrastructure. This can help vulnerable populations have access to clean water and sanitation.

Moving forward

Access to clean water and sanitation supports healthier families and a more productive workforce. Companies have started to realise that strategic investments in SDGs deliver value through reducing risks and decreasing operating and supply chain costs. This further translates into improved product value and opening new market opportunities for Indian businesses.

In conclusion, we must note that the interdependence between SDGs and business has immense implications in terms of local action and national policy to cope with the economic ruins from the pandemic. SDGs would not only promote new business opportunities, but more importantly, they would also help in sustaining conducive investment climate in the country. Integrating SDGs in the national development agenda will also have immense implications for contemporary India's flagship Make in India Programme and the Atmanirbar Bharat Abhiyan. ◆

Our eternal lifeline

Water scarcity impairs over 40 per cent of the global population

RAJASHREE BIRLA

The pandemic has had a devastating effect, a pushback to progress made over several decades. The number of lives lost and lives wasted, consequent to the pandemic's impact on all major socioeconomic indicators, has caused much despair. The UNSDG 2021 report alludes to the rise in global poverty, forcing 124 million into abject living conditions, consequent to the pandemic. India is no stranger to poverty. The United Nations estimates 364 million people living in poverty (2019).

To lift the burden of poverty from the shoulders of the marginalised, our government's endeavours are unrelenting, both in scale and investment levels. It has been a banner year of sorts. In development activities viz education, agriculture/farm welfare, rural development, social justice, women/child development and health/family welfare, Rs5 lakh crore has been earmarked. The government's commitment to India attaining freedom from poverty by 2030 should come to fruition. As a nation, we are on the right course.

Water, the life force for humanity, is the absolutely essential building block. It is the central piece for our planet. Recount Leonardo da Vinci, who said: "Water is the driver of nature."

Water and decent sanitation are inextricably linked to all development processes. International agencies such as UNICEF, United Nations University, United Nations Sustainable Development Report, among others record that, water scarcity impairs over 40 per cent of the global population and 2.4 billion people do not have access to basic sanitation services. Sadly, every year 300,000 children succumb to waterborne diseases. It augurs well that SDG-6 focuses on clean water and sanitation. It underpins other SDGs as well. Water is the lifeline, any which way.

By and large the UNSDGs, viewed in totality are a revolutionary leap, a kind of wakeup call to every nation to pay close attention to people largely from the vulnerable sector and the entire planet. It has heightened sensitivities across 193 countries. A shot in the arm in the move towards a fair and equitable society, the UNSDGs have an appealing logic.

At the Aditya Birla Group, the underlying motto in its CSR engagement has always been to engage, uplift and empower communities and in doing so perpetually be a force for good. It is heavily invested in healthcare, education, sustainable livelihood and infrastructure development. Water is the pivotal force that propels the group's projects in business and beyond. It is the most critical resource. Its sustainable management is of immense importance for the business community. So, the SDG-6 is of great significance to the Group.

Climate change, dwindling ecosystems, exploitation of natural resources besides pollution, have accelerated the stress on water resources in terms of its availability and quality. Towards building water resilience, the Aditya Birla Group has taken a comprehensive stepwise approach both inside the location boundaries as well as in the watersheds of its operation. It has put in place its Water Stewardship Policy championed by the Group Chairman, Business Directors/CEOs and other seniors. This aims at protection and conservation of water resources through excellent water management practices and governance systems and is being operationalised through performance targets and roadmaps across the Group's sites.

When one thinks of water in the hinterland of India, with its rugged pathways, the picture that immediately surfaces in the mind's eye is that of a woman with a pitcher on her head, trudging miles on end to fetch it. Today, the scenario is very different. In quite a few of the 9,000 villages that the group works in, it has met this arduous task of ensuring water availability for households and farmers. The government has rightfully given access to water in rural areas, the primacy it deserves. The plan is to provide tap water for all under the *'Har Ghar, Nal Se Jal'* scheme. The scheme's dashboard reports that over 5.6 crore homes now have water on tap.

An integrated aggressive watershed management programme implemented as part of its CSR engagement has yielded rich dividends as well. Its components include water harvesting structures: construction of check-dams, instituting tube wells, tanks and water reservoirs. Side-by-side rainwater harvesting, including rooftops, reinventing step-wells, lakes (*talaos*), wells (*bowris*), soil conservation, refurbishing aquatic ecosystems, setting up reverse osmosis plants and water ATMs, have brought much succour to a water starved populace pan India. Besides the admirable government support, the group partners extensively with development agencies such as NABARD, MYRADA, ICRISAT and AFPRO on the technical side, among others. The water conserved annually is over 33 billion litres. Water user groups are formed at the plants to make sure that eventually the villagers become self-reliant. There is a sense of joy and lightness among them. Numbers mean a lot, but smiles mean a lot more.

To conclude in the words of our visionary Prime Minister: *"Jal hai toh kal hai"*. Water is our lifeline. ◆

The author is the Chairperson, Aditya Birla Centre for Community Initiatives and Rural Development

‘Unleashing growth with sustainability at the core’

r customers ca
TRUST us
We are pioneering
OVATORS
r industry

NEERAJ BAHL, MD & CEO, BSH Home Appliances

What are BSH’s Sustainability focus areas?

Our goal is to lead our industry toward a sustainable future. To achieve this, we will increase our products’ efficiency and build a sustainability strategy that integrates three perspectives: Planet, People, and Prosperity.

Planet: Our climate-neutrality targets for 2030 aim to reduce energy consumption, and reduced C02 emissions along the value chain. Our new material and substance strategy targets >95% material recyclability, >50% recycled content, and a 15% reduction in CO2 consumption by materials until 2030.

People: We push for sustainable features, providing products, services, and features that are safe and support healthy nutrition and hygiene and actively reduce stress (e.g., due to noise, handling). We will continue to support local communities as a responsible employer, with initiatives that promote nutrition and hygiene.

Prosperity: We see profitable growth as a prerequisite and at the same time a result of a sustainable business approach. Therefore, regenerative growth is the foundation for enabling necessary innovations and investments that will ensure our future competitiveness and further investments in sustainability.

Sustainable Development Goal 8 is focused on Decent Work and Economic Growth. What best practices has BSH India adopted for its employees and the community?

At BSH, we are committed to fostering a great working environment by focusing on six pillars - digitalization, excellence, learning, leadership and collaboration, transformation and striving to become an employer of choice. Some of the best practices that we have adopted for our employees and community include:

- Contributing to human health with innovative products and services and ensuring that people and the environment are not at harmed in the production processes
- Taking responsibility and respecting human rights – along the entire value chain
- Prioritizing occupational health and safety of our employees, providing ideal working conditions and investing in our employees’ mental and physical wellbeing. Furthermore, we are creating a working environment that allows them to successfully flourish, perform, and have a long-lasting, positive impact on our organization, environment, and society
- In an endeavor to minimize our ecological footprint and create social benefit, we have put our faith in the principles of the circular economy and the opportunities presented by digitalization

B/S/H/

For the world to combat climate change and its impact, the UNEP has identified a set of achievable high-priority micro actions (oneplanetnetwork.org that individuals can take to contribute to sustainable macro changes in the economy and society at large. To give an example, refuse to use plastic. What initiatives has BSH taken within the organization to achieve sustainability and reach a wider section of the society with these initiatives?

At BSH, we believe that sustainability is three-dimensional and that these dimensions are not mutually exclusive but are deeply interlinked. The three dimensions broadly include-minimization of our environmental footprint in all areas of our value chain, the pursuit of a socially sustainable future that is just equitable, inclusive, and enables a high-quality life at home and lastly the investment in long-term business persistence that does not exchange long-term business success for short-term profits.

We are pioneers in climate change and our business operations have been climate neutral since 2020. Along the entire value chain, BSH contributes its knowledge and technologies, multiplying the influence it has on the reduction of greenhouse gas emissions

For us, water is a resource to be treated sparingly. We offer water saving products such as dishwashers which have help save water with every wash. Within premises of our manufacturing the plant, we are adopting small yet significant steps like reuse of tested appliance water and rainwater storage and saving.

We want to prevent environmental pollution and reduce climate change the best we can.

BSH is a company that ‘cares’. Would you share the initiatives that the company has taken in India for social engagement?

We are only as good as our community is. Therefore, our social commitment is threefold: We care for the physical and mental health of our employees. We offer products and services that noticeably improve life even in less privileged areas of the world. And we team up and collaborate with social organizations to support local communities.

We are consistently working on the development and empowerment of the local communities surrounding our factory premises in Chennai especially in areas of sanitization, schooling and medical support. We care about the health and safety of our employees. We democratize technology by launching new business models and impactful innovations. We uphold international human rights as a central element of corporate governance with integrity and responsibility.

Water, water everywhere

Water has been so severely exploited that 40 per cent of Indians will be without water by 2030

DR REDDY'S LABORATORIES LIMITED

Making every drop count!

With 2.2 billion people living without access to safe water, we find that water as a natural resource is the most impactful area for environmental conservation, especially in water-stressed areas. Projects related to water have a far-reaching impact beyond the organisation and community, affecting every living organism in the project ecosystem.

As a responsible pharmaceutical company Dr Reddy's Laboratories has focused on tackling climate change, and set a water 100 per cent neutrality goal for 2025, ensuring that it enhanced the water quality at every company touchpoint.

The pharmaceutical industry requires high quality water with varying degrees of water purity in drug production processes. The company has set up a three-fold approach to implement its water management initiatives: water efficiency improvement, source water sustainability and watershed development.

Resource conservation, pollution prevention and remediation are fully integrated in its Safety, Health and Environment (SHE) policy. It constantly tracks all water-intensive operations, assessing its intake and keeping a tab on all outgoing water from its sites to spot any opportunities for water conservation, reuse, or recycling.

Dr Reddy's has signed a Memorandum of Understanding (MoU) with the Confederation of Indian Industries (CII) and Triveni Water Institute to implement sustainable water management initiatives, both in India and worldwide. The pharma major has also partnered with Watershed Organisation Trust (WOTR) for support in implementing its integrated watershed development programme.

The watershed project focuses on building water recharge structures to enhance the water table in the aquifer, increase afforestation to conserve soil moisture and support the livelihood of nearby villages.

The company also works closely with communities, educating them on water, sanitation, and hygiene (WASH), along with providing guidance on improving irrigation and water management. Through its School Improvement Programme (SIP) that supports the education of government school students, the company also provide basic facilities such as sanitation and safe drinking water and have installed Reverse Osmosis (RO) water plants in 182 schools.

Water stewardship Dr Reddy's is committed to water stewardship and water is one of the six focus areas of its Sustainability Ambassador Programme. The platform engages its employees on the sustainable development agenda, enabling its water ambassadors to lead change within and outside the company.

Every year, the company responds to the CDP Water Security disclosure as a step towards greater transparency and accountability, and to benchmark its efforts, performance, and progress against its water goals. Its CDP water security score for 2020 is A-.

As part of the company's water conservation initiatives within the fence, it implemented a systematic Water Pinch Analysis (WPA), evaluating flows & quality of different streams to analyse water reuse opportunities across its operations.

The company uses RO technology to reclaim external wastewater sources and reduce its freshwater consumption, turning waste to resource.

It uses the Zero liquid discharge (ZLD) water treatment engineering approach at 17 of the company's 24 manufacturing facilities where all water is recovered, and contaminants are reduced to solids. The remaining eight facilities follow government-specified disposal methodology to ensure zero wastewater flows out of the company's sites, helping stop the rise and spread of Antimicrobial Resistance (AMR) in water streams.

For its activities outside the fence, the company carried out detailed water risk and evaluation studies across all watersheds of Dr Reddy's to determine alternate rich water resources using appropriate hydro-geological studies and thorough scientific assessment and tools such as WATSCAN (a water risk evaluation tool), and Ecolab's Water Risk Monetiser tool (based on WRI's Aqueduct risk indicator tool).

Key challenges the company faced in implementing these initiatives include the alignment of all the numerous key stakeholders for effective intervention and involvement in its water management efforts, and understanding and navigating emerging regulatory challenges which often slow down overall implementation and cause delays.

During FY21, Dr Reddy's achieved water savings of 109,588 kl with monetary benefits of ₹14.1 million through water reduction initiatives within the fence.

In FY21, the company also increased its surface water utilisation from 22 per cent to 37 per cent compared to last year, reducing overall dependency on groundwater.

It also reached 74 per cent water neutrality through both water savings initiatives such as rainwater harvesting within the fence, and various community watershed initiatives beyond the fence.

It is exploring emerging water-related risks and opportunities, focusing on local community water needs, and identifying new equipment, and innovative tools and technologies to create shared value for long-term water security.

The company intends to be fully water neutral by 2025 and turn into a water positive company as a future goal. ◆

L & T

Watershed moment!

Check dam at Chettipalayam before (left) and after (right)

L&T's CSR interventions relate to UN Sustainable Development Goals of mitigating poverty, hunger, enhancing health and education and promoting gender equality, as well as provision of clean water and sanitation. The company provides technology-based solutions, thereby accelerating development.

L&T's Integrated Community Development Programme (ICDP) is being implemented in nine water-stressed locations in Rajasthan, Maharashtra and Tamil Nadu since 2014, to improve water availability for drinking, agriculture and sanitation. ICDP has been designed and executed in collaboration with local NGO partners.

The programme covers 23,282 households across 36,211 hectares of land. Today, with the help of community participation, the project in five locations is on its way to self-sustainability and the communities have access to water for drinking, sanitation as well as for cultivating additional crops and fodder for livestock.

Water harvesting structures were constructed and restored with participation from the community. These structures, along with other sustainable agricultural practices, helped in increasing the water level in water bodies and retaining soil moisture. For instance, the check dam at Chettipalayam in Tamil Nadu was sealed to prevent water leakage so that rainwater could be stored at its full capacity. It can store 32 million litres of water in a single fill per year benefitting 20-30 farmers and irrigating 80 acres of land in its vicinity. It helped create a recharge zone for the surrounding areas, leading to a steady increase in the groundwater level.

As more water is made available through protection of water sources, individually owned tanks have been replaced by communal tanks. These draw water through solar power-driven pumps and deliver it to about 3,500 households in Rajasthan, using gravity, thereby eliminating the use of electricity, and having zero carbon footprint.

Farmers now know how better crop selection and efficient irrigation methods reduce the demand for water. In Maharashtra, participants trained in water budgeting decided that available water will first be reserved for drinking and other basic needs and then for rabi crop. Now farmers engage in agricultural practices that use minimum water, zero-budget natural fertilisers and low-cost organic manure, to retain fertility of the land, thereby increasing yield.

Overuse and extraction of ground water has been a problem in the project area in Kumbhalgarh, Rajasthan. Hence, wells and aquifers were recharged after measuring the water levels and with participatory decision-making regarding coverage. Channelising surface water has also reduced the irrigation burden. Due to soil moisture, vegetation through plantation in pasture lands has increased. Better farming management and reduction in uncontrolled grazing has reduced dependence on forests.

Community involvement The ICDP interventions were planned in consultation with experts. Further, the community's involvement in soil and water conservation practices helped increase water availability, reduce groundwater exploitation and prevent land degradation. With improvement in water availability, farm-based livelihood enhancement was initiated as crops required assured irrigation. For instance, 48 acres of pastureland have been developed in Bhim, Rajasthan, which has now provided fodder security to the community and income earning opportunity for more than 900 women through fruit plantations.

Farmers are equipped with know-how on growing less water-intensive crops, zero-budget natural farming, using organic manure, organic inputs for soil enhancement, improving plant growth and pest management. SHGs have been trained to chlorinate water to prevent spread of water borne diseases. Soak pits allow surface areas around the village houses to stay clean and help to increase the ground water table.

L&T has scaled up its community-led total sanitation approach. The project worked at two levels – spreading awareness on sanitary practices and providing water followed by toilet infrastructure in the communities. Using financial contributions and shram daan from the community trained in construction skills, 4,216 well-designed household toilet-cum-bathrooms were made with locally sourced materials. Children have been made aware of the importance of using them. Contributions through shram daan in Kumbhalgarh project area are estimated at about ₹13 lakh aggregated across all watershed and sanitation-related activities.

Capacities of farmers, water user groups, sanitation committees, women's self-help groups were built for implementation of project activities and to catalyse community-driven adoption of good practices. Apex level bodies have been strengthened for management of resources, advocacy with local administrative units and monitoring of outcomes.

Village development committees (VDCs), including women representatives, farmers' groups and SHGs, maintain and regulate the use of common resources. For instance, secure and equitable access to fodder in Kumbhalgarh, Rajasthan, is managed by the VDC. As a result, 197 hectares of pastureland have been developed there and 17 per cent families have fodder for the entire year, while the rest have it for nearly 10 months. The VDCs have raised about ₹40 lakh for ongoing maintenance and repairs too.

More than 1,500 people across Kumbhalgarh project area volunteered for the maintenance of pasturelands, drinking water systems, deepening of wells, road construction and cleanliness drives. In Rod ka Guda village, people came together to repair the kutcha road leading to a Balwadi centre, which not only ensured better access to the Balwadi for the children, but also allowed vehicular mobility for distribution of nutritious food to the centre.

Today, all the project areas have access to drinking water and sanitation facilities. Due to the improvement in groundwater level, farmers can cultivate extra cycles of crops and provide fodder to livestock. L&T's integrated community development programme has demonstrated how corporates can commit to realisation of global social goals. ◆

NOVOZYMES

No more water woes

Novozymes provided storage tanks and enhanced the water distribution system

Patalganga at Raigad district in Maharashtra is home to Novozymes South Asia Pvt Ltd's production facility. Situated in the Konkan belt, the area receives heavy rainfall of about 3,000 mm annually, despite which, water conservation faces serious challenges in this region. Further, the sparsely vegetated and steep slopes of the hills add to the erosion of the fragile and fertile topsoil.

After assessing the region using a scientific method called geophysical satellite survey and the water conservation challenges the area faces, Novozymes initially decided to focus on two villages – Thakurwadi and Sai Nagar – which faced water shortage for over 5-6 months, starting every February. Empty wells and inconsistent supply of water during summers were forcing women to daily collect water from wells situated far away from their homes.

Novozymes partnered with NGO Anarde Foundation – which has expertise in implementing water projects – and launched Novozymes Water Opulence (NOWO) project, to provide a complete water solution (conservation, preservation, distribution and education).

New concept Novozymes and Anarde chalked out an engineering plan to enhance the existing water supply and distribution system. Despite Covid-19 posing a major challenge, the team took all precautions and started the journey to support the villagers. It laid emphasis on implementing the new concept of well-water discharge at the villages for consistent supply of water from the existing water sources. It built multiple gabion bunds and loose bolder structures to slow down the water gushing downhill during the monsoon, increase groundwater levels and avoid soil erosion.

Novozymes prioritised desilting of existing wells, pumping and improving the water storage and distribution system. It also worked on improving the existing piping and reviving the entire water system, providing a sustainable solution.

In addition to the technological intervention, the team realised that the involvement of villagers in this project was crucial to its success. Hence, it helped form village development committees (VDCs), with influential women from the villages in charge of water conservation. It also trained the VDCs on smart and appropriate consumption of water, who in turn spread the awareness among the villagers, thus ensuring a sustainable venture. With this project, Novozymes not only aim to raise the groundwater level in the area, but also empower the villagers to be water neutral.

Novozymes started the project in March 2020 and the first phase was completed in April 2021, covering the villages of Sai Nagar and Thakurwadi. In Sai Nagar, it enhanced the water distribution system, provided storage tanks and connected a new pipeline to the existing supply. In Thakurwadi, it completed water distribution from wells to tanks and from other additional sources. The villagers now receive sufficient water for their daily use and the wells have sufficient water throughout summer till the monsoon arrives in June.

All the hard work resulted in improved water availability and distribution system for the villagers. As many as 96 families in Thakurwadi and 104 families in Sai Nagar have benefited from this project. But most importantly, the well-being of women – who had to struggle through the hilly terrain to fetch water in the sweltering heat – has improved. This provides them some relief from their already hectic daily schedule and leaves them time to help their families.

After the successful implementation of the NOWO project in Thakurwadi and Sai Nagar, Novozymes is aiming to cover more villages near its production facility in Patalganga. Access to and availability of water is going to be the key focus area. Further, Novozymes and Anarde are also assessing the need to focus on the holistic development of these villages, including sanitation, awareness campaigns on forests and vocational training for livelihood generation. In Borivili village, Novozymes noticed that the water supply and storage was not enough to meet the daily requirement of over 100 families in the village. Due to this, a major portion of water was wasted. Under its CSR efforts, Novozymes quickly developed a 60 kl water tower and improved the supply by retrofitting the pipes.

Now, the villagers have been assured of continuous water supply to address their daily needs with no wastage. This was one of the first initiatives the company carried out before Novozymes commenced operations in Patalganga.

Covid-19 and the resultant nationwide lockdown brought in numerous challenges for people from across all sections of the society. The company realised that the neighbouring communities are far from various basic facilities, especially with limited availability of essential items. The employees at the company's Mumbai site took charge of their civic responsibility and initially provided groceries to the residents of a few nearby villages. In the second phase of the venture, Novozymes also pitched in and was together able to provide groceries (sufficient for about 1.5 months) to 700 families spread across seven small villages (known as wadis).

Novozymes initiated a tree-plantation drive in a neighbouring village to its Mumbai facility. Employees, along with Anarde Foundation and villagers planted 1,140 fruit-bearing trees. These trees have been adopted by the villagers (about 11 trees per family). Anarde Foundation will support the villagers to grow the trees. Novozymes also planted 200 additional trees near the company's production facility.

These initiatives also provide opportunities to Novozymes' employees (called Zymers) to work with the villagers, make a positive impact on the neighbouring communities, and give back to society. ◆

AMBUJA CEMENT FOUNDATION

Drought proofing India's villages

In India, water has been so severely exploited that 40 per cent of Indians will be without water by 2030. In this situation, there is a role for everyone to play in averting this impending humanitarian disaster.

At Ambuja Cement Foundation (ACF), water is central to its work – not only because it is important in Ambuja Cements' manufacturing, but also in terms of achieving its primary mission: generating prosperity in rural communities which was a vision of the founders. ACF's aim is to create drought resilient communities who are self-sustaining when it comes to water.

ACF sees SDG-6 and its mission to achieve universal and equitable access to safe and affordable drinking water for all, as being pivotal to the life and livelihoods of rural communities.

ACF's work on water leverages on its core competencies of understanding the technicalities and abilities of effective community mobilisation pivoting around water harvesting; drinking water and water use efficiency.

In this way ACF tackles both the demand and supply issues so pertinent in addressing India's water crisis. While capturing rainwater as and where it falls and storing it for future use.

Central to everything ACF does, is the role of the community which is the biggest stakeholder and partner in water and ensure that they actively participate, contribute to and manage the solutions to their own water woes. To ensure sustainability, ACF builds People's Institutions which have a formal structure, processes and system.

These people's institutions come in various forms – water user associations, local sanitation committees, village development committees, etc.

For example, in Kodinar, Gujarat which was severely affected by salinity ingress, ACF took a holistic and collaborative approach by involving the government, community and NGOs who pooled in resources and reached out to 103 villages. Within a few years of building check dams, the salinity was pushed back and fresh water was available from four to eight months post the monsoon.

ACF not only identifies key solutions and uses modern technologies to address serious water issues in rural India, but is also reviving traditional systems to capture and store rainwater and harness it to replenish depleted groundwater supplies.

In Kodinar the innovation of interlinking structures through canals, creating a sweet water buffer and channelising excess water runoff has changed the face of the geography.

Water sustainability became a core vision of Ambuja Cements

In Rabriyawas, ACF built underground dykes, alongside a river which were close to farmers' wells, to encourage maximum recharge. These dykes were constructed to prevent the flow of the sub-surface water below the riverbed and served as a solution for farmers who once struggled with the falling water table.

The next step was to look at water quality. ACF taught numerous local communities in Kodinar how to test the quality of their drinking water. It focuses on using traditional wisdom, long-term commitment, stakeholder engagement (government and like-minded organisations) and the community at the centre.

In order to measure its impact, ACF has created a Research & Monitoring unit which not only helps track outcomes, but also tracks programmes to provide course correction where necessary.

One key, internationally recognised method of measuring the impact of ACF's water work has been the Social Return On Investment (SROI) methodology. In Kodinar, for every ₹1 invested there was an SROI of ₹13.03; in Rabriyawas, Rajasthan, for every Re1 invested there was an SROI of ₹5.26; and in Darlaghat, Himachal Pradesh, for every ₹1 invested there was a SROI of ₹8.44.

Water positive ACF's water interventions also plays a key role in helping its parent company, Ambuja Cements become eight times Water Positive. As a large water consuming industry, cement production often has a bad reputation; however, ACF's contribution, along with Ambuja Cements' sustainability measures, have ensured it remains one of the leading cement companies in the world in terms of managing its water footprint.

ACF has spent over ₹160 crore to create water storage capacity of 58.64 million cubic metres. It has seen an increase in ground water levels by 2-12 metres and water-borne diseases have been reduced in Kodinar. With a total dissolved solid reduction in the range of 500-5000pm, farmers have moved from one to 2-3 crops a year. Also, 981 rainwater harvesting structures and 733 common drinking water sources have been created and communities have the ability to test their own water.

All this has resulted in an overall reduction in migration, and reduced drudgery with women being part of Paani Samitis, and their children undergoing skill training.

Water sustainability became a core vision of Ambuja Cements across geographies. Whilst ACF started out as the CSR arm of Ambuja Cements, as a foundation it has expanded exponentially and it now works in 44 districts.

Looking at 2025 and beyond, ACF will focus on ensuring 100 per cent households in its core villages receive safe drinking water and will build the capacity of Panchayati Raj Institutions on water surveillance, increasing the availability of surface water storage to 75 mcm by working on harvesting structures, groundwater recharge and the reduction of wastage by 30 per cent.

Via its agriculture thrust area, ACF will bring 50,000 ha of farming land under micro-irrigation by engaging farmers in in-situ and ex-situ water management techniques. ACF will also focus on improving the socio-economic situation of communities by forming at least 200 functional groups ensuring that each village has a people's institution. ◆

HT PAREKH FOUNDATION

The Kolhapur model

Kolhapur in Maharashtra has a population of approximately 6 lakh, of which 10 per cent live in slums. Most residents living here have limited access to sanitation services or infrastructure. Community toilets have a toilet seat to individual ratio of 1:20. They lack running water and electricity, long queues pose health and safety risks for women. The H T Parekh Foundation, HDFC Ltd's philanthropic arm, saw Kolhapur as an ideal Tier II city to undertake innovative sanitation initiatives.

The Foundation has been working in Kolhapur since 2016, with the aim of creating a model sanitation city through a multi-stakeholder collaborative approach involving civil society, slum communities and the Kolhapur Municipal Corporation (KMC).To achieve this goal, their interventions were grouped into three focus areas.

End open defecation: The Foundation partnered with Shelter Associates (Shelter) – a Pune-based nonprofit, working to improve the living conditions of the urban poor in the areas of sanitation and housing since 1994. During the first year of support, a citywide slum mapping was undertaken using GIS technology to collect, organise and publish data gathered through surveys and mapping. Through this exercise, Shelter was able to identify areas that lacked drain connectivity and areas to improve drain network

HT Parekh Foundation's innovative sanitation initiatives are remarkable

connectivity.

This data-driven insight was shared at the outset with KMC and was key in facilitating the construction of 3,400+ individual household toilets, across 29 slums in Kolhapur between 2016-2020. Through Shelter's 'One Home One Toilet' Initiative, the Foundation specifically focused on individual household toilets for families with senior citizens, persons with disabilities and adolescent girls, with the aim to provide sanitation solutions that are safe, hygienic and to afford dignity.

Advocacy and behaviour change: Shelter's strong government and community relations were key to sustaining this initiative and taking it to scale. Through a series of awareness and behaviour change activities conducted with community members, Shelter was able to positively influence and change behaviour of families on safe sanitation practices, as well as increase the demand for individual toilets.

The Foundation's follow-on strategy after providing access, focused on management and treatment of sanitation waste through faecal sludge and septage management (FSSM) solutions. For a majority of slums in Kolhapur, on-site sanitation options (septic tanks) were a viable solution for toilets not connected to drainage systems. The Foundation partnered with the Centre for Water & Sanitation (CWAS) at CEPT University, a think-tank with the expertise in urban planning and operationalising interventions at the local and policy levels. CWAS conducted a citywide sanitation assessment in areas that relied on septic tanks and an FSSM plan was developed in consultation with KMC.

Major challenge A pilot zone consisting of 10,000 households connected to septic tanks was selected to implement scheduled desludging of septic tanks and ensure proper treatment of septage. Additionally, the Foundation supported the procurement of two 3000L capacity trucks with the capacity to desludge 8-10 septic tanks per day. To scale and sustain this initiative, CWAS partnered with the local government for manpower and desludging operations for ownership and sustainability.

A major challenge was the need to finance scheduled desludging, and CWAS was able to work closely with KMC to ensure scheduled desludging expenses were covered through existing sewerage or property tax, thereby ensuring no user charges were collected at the time of desludging. This initiative incentivised households to use toilets, without worrying about paying user charges to get the septic tanks emptied.

Online monitoring systems in the form of a mobile application (Sanitrack) and radio frequency identification (RFID) were deployed to track, monitor and schedule desludging operations. To drive awareness and interest amongst students and local stakeholders, a landscaped resource centre was developed on the premises of the existing Sewage Treatment Plant.

By working with partners with a strong community connect, government relationships, technical knowledge and implementation capability, the Foundation supported Kolhapur's efforts to move from ODF to ODF+ to ODF ++ (city level septage management plan and treatment of sanitation waste). Over the past five years, the Foundation has provided sanitation access for 15,500+ individuals, instilled positive and healthy sanitation practices, and created a city-wide FSSM plan with KMC. With improved access to individual household toilets and facilities for regular desludging, Kolhapur will be able to achieve target 6.2 of the Sustainable Development Goals of "safely managed sanitation".

The Kolhapur Model is evidence of what can be achieved when plans are centered around the needs of the community. The impact created was only possible through community and government participation. Under this model, the Foundation has seen decentralised sanitation solutions work well whereas centralised sewer systems in smaller towns face challenges. Ultimately, the Foundation hopes to create access and opportunities that transform the lives of vulnerable communities from surviving to thriving. ◆

ICICI FOUNDATION

Recharge and replenish

ICICI Foundation's crop substitution in Karnataka

For over six decades, the ICICI group has been contributing to India's economic growth and development. While promoting inclusive growth, the group has made differences to its customers through its products and services, as well as supporting development initiatives and community outreach. ICICI Foundation, the CSR arm of the ICICI group was set up in 2008 to enable inclusive growth. The Foundation has made a difference to over 600,000 lives.

Working on the strategic pillar of 'Shortage' and 'Environment', the Foundation has implemented various interventions towards conservation and management of water. India, with its varied climatic conditions across regions, finds it difficult to have any one size fit all solutions for water scarcity.

Moreover, the rate at which groundwater is depleting, studies suggest that India will soon run out of groundwater, posing a serious threat to water supply and food security. It also threatens to upend economic stability and public health. Hand in hand with the groundwater depletion and contamination, is a food supply 'toxic time bomb' of global implications. ICICI Foundation has been working on identifying the need gaps across areas of intervention by creating customised solutions.

ICICI Foundation has implemented Rainwater Harvesting Project in over 300 government schools across 54 districts in rural India – advancing on the traditional and cost-effective method of conserving water.

The region/ block were adopted on the basis of water shortage; the ability of the premise to accommodate a catchment area; and its ability to educate generation next on best water practices.

This project resulted in making 50 million litres available through ground water recharge or reuse. During this fiscal year, the scale-up plan is to touch 1,000 schools.

Water crisis Dhanora, a village in Latur district of Marathwada region, has been facing frequent water crisis due to the uncertainty of rainfall, leading to an acute shortage of drinking water as well. The Foundation, along with the Gram Panchayat of Dhanora village, has implemented a plan, which revolved around revamping of the canal gates for retaining water from the Prerana river, which was previously getting washed away. This intervention led to getting 150 acres of land under irrigation, providing 386 households with drinking water and the recharging of 100 wells and 75 bore wells in the catchment area.

In Sarate Vadgaon village in Beed district, even the drinking water requirements were not being met. The river path leading to the check dam was shallow. ICICI Foundation, along with the Gram Panchayat of Sarate, implemented a river-deepening initiative through excavation and compacting. The intervention has led to additional water storage of 60 million litres, while the recharge will support 125 bore wells and 95 wells, providing 255 households with drinking water. Farmers with vegetable and horticulture plantation can now have a second crop in summer, along with 185 acres of land irrigated in the rabi season.

Kajala village, Osmanabad district, in Marathwada region has been facing water shortage over the years. To improve the levels of ground water, two approaches were adopted – first, to widen and deepen the dried-up lakes and nalas; and, the second, to create bunds in the farms to hold rain water during monsoon. This resulted in rising ground water levels and making the village self-sufficient with regards to water needs. The 29 million litres of rain water that was conserved is used for farming and domestic purpose.

Sugarcane has been making the farmers dependent on water, while fetching low prices. To upgrade the livelihood of the farmers, in Belagavi and Bagalkot districts of Karnataka, crop substitution and diversification was proposed. The farmers were convinced to move to a less water-consuming crop like turmeric, which earned better income, as compared to what was earned from sugarcane. This intervention also helped in reducing water consumption – from 80 million litres to 800,000 litres. Farmers could grow another crop – beans, coriander, etc – along with turmeric during the year. In 2020, over 1,600 farmers benefitted from this intervention.

Mayiladuthurai in Tamil Nadu has paddy as the dominant crop, which is water-intensive. There was a need to devise a technique that would sustain in situation of less availability of water. ICICI Foundation implemented 'alternate wet & dry' technique of irrigation to reduce water usage. The method involves intermittent or controlled irrigation, with the AWD period varying, based on rainfall, climatic condition and soil. The technique reduces water usage by 30 per cent without yield loss and is preferable for farmers under bore wells and dry lands.

Also, a System of Rice Intensification

(SRI) increased the yield of rice. It is a low-water, labour-intensive method that uses younger seedlings singly spaced and weeded with special tools. As much as 988 acres of SRI method of paddy cultivation was adapted by the farmers, saving up to 1.3 billion litres of water.

Ladakh receives less than 100 mm rainfall. The agricultural activity is only between March and October. Due to water scarcity, farmers are unable to carry out agricultural activity during spring. ICICI Foundation, in tandem with Er. Chewang Norphel (aka 'Ice man of India'), built an artificial glacier, to freeze water during winter and melt it at the right time for the farmers for sowing. This artificial glacier can hold about 55,741.82 cu m of snow. Since the artificial glacier is located at a lower altitude of 13,000 ft, as compared to the original glaciers located at 18,000 ft, it melts earlier, providing water to the villagers during April.

Such steps towards enabling sustainable livelihood stand testimony to the legacy at ICICI of identifying need gaps and addressing them with tailor-made solutions. ◆

MEDREICH LTD.

Quenching their thirst

The value of giving back to society has always been a part of the Indian culture which has been imbibed through values and ethics since time immemorial. At pharma company Medreich, its core value of "Winning Together" resonates well with its concept of CSR initiatives to create a positive impact on society. Medrich's initiatives are not just limited to economic or financial development, but also the development of the community in terms of education, health, livelihood, infrastructure development and more.

Clean water is critical to survival, and its absence impacts the health, food security and livelihoods of families across the world. Water is one of the top priorities for Medreich and, as a healthcare company its emphasis has been to ensure sustainable availability of drinking water for the communities around it through its water strategy which focuses on Reduce, Reuse, Recycle and Replenish. Medreich strongly believes that equal access to clean drinking water and efficient water management will define India's ability to achieve high economic growth and ensure environmental sustainability. Among many SDG initiatives the company has taken drinking water project as the key priority. With its initiatives in effluent treatment plants and recycling facilities, sewage treatment plants, rise in water vigilance, and rainwater harvesting facilities Medreich is playing an important role in water-management and progress.

Clean drinking water is the paramount necessity of every human being. Several health issues arise in the rural community due to its absence. Many children and adults' health is impacted due to diarrhoea, lower respiratory tract infections, and other communicable diseases which can be preventable if clean drinking water is provided. Medreich joined hands with the Village Panchayats around its factories to provide clean drinking water to many villages in and around Kolar, Karnataka. The drinking water project had a direct impact on all the households. To provide safe and pure water, RO plants were set up under a model project through which pure water is made available. Till now, 22 RO plants have been set up to supply clean drinking water to nearly 10,000 people in 20 villages. In the coming years, Medreich has plans to set up more RO plants in the nearby villages.

The initiative was successful as water systems were owned, operated, and maintained by local communities ensuring engagement at all levels of the targeted community for social, financial, and environmental sustainability. It enhances the opportunity for the company to do more good for society and significantly strengthen its relations with the community. Given the criticality of water, the company has a huge scope and desire to cover many surrounding villages and add great value to society. This programme is initiated to overcome the hardships of villagers who were deprived of clean and safe drinking water.

Sustainability initiatives "We used to depend on clean drinking water from surrounding villages. My family has 6 members and their health is my responsibility. I can't let my family be at the risk of diseases therefore we are now relieved and happy that Medreich has installed this facility at our village," says Venkatamma from Bandehalli village.

Apart from this Medreich also took key environmental sustainability initiatives to harness alternate source of power. It adopted a village, near its Kolar Road facility and installed more than 20 solar street lights. Education has been another strong focus area, as Medreich has taken up several initiatives to augment the learning outcomes, strengthening infrastructural and institutional indicators in the local villages. Emphasis was given to the renovation of government schools and the donation

Water systems were owned, operated and maintained by local communities of computers. Sixteen schools were renovated under this key project and more than 25 computers were donated to augment the quality of education to rural children.

Medreich also took various welfare initiatives including essential services, financial aid, and medical facilities during the recent natural calamities and Covid-19 hardships. It joined hands with government and NGOs to support communities who had a direct adverse impact due to floods and pandemic and sustained hardships.

The company's CSR initiatives are focused on sustained actions and successful implementation to create a sustained impact on all the stakeholders. As they say, "Businesses cannot be successful, when the society around them fails." ◆

MAITHRI AQUATECH

How clean is your water

India has been over-extracting water from groundwater aquifers and other water bodies for long, leading them to dry up. This problem has been further exacerbated by the discharge of wastes into the scarce water bodies, leading to contamination of the water. Ramkrishna Mukkavilli, founder, Maithri Aquatech, has discovered the concept of 'atmospheric water generation', as a possible alternative and a disruptive solution, capable of mitigating water and environmental issues sustainably. His Maithri Aquatech is a 'Make-In-India' initiative to turn this vision into a reality. Since 2016, the company has been working on building 'Meghdoot' – a solution capable of mitigating global water issues. Today, over 300 units of Meghdoot have been installed in over 17 countries and will expand to many more.

Maithri Aquatech has a tie-up with the Indian Institute of Chemical Technology (IICT), which operates under the Council of Scientific & Industrial Research (CSIR). It has also partnered with Bharat Electronics Limited (BEL) to work on the mass manufacture process for Meghdoot and also help connect with Defence and overseas markets. The company, together with The Energy and Resource Institute (TERI), a premier Indian research institute, has endeavoured to help assess the adaptability of Meghdoot in real-world situations. It has also worked with the Wockhardt Foundation and the ATFSC Foundation to help grow the positive impact of Meghdoot.

The company has a deal with a UK-based multinational company, Contec Global, to expand across Africa and the Gulf to build water and food security in the region. One of its most recent partnerships was with USAID and Safe Water Network (SWN) – a part of Sustainable Enterprises for Water and Health (SEWAH) – which focuses on last-mile delivery of safe drinking water. Through this partnership, Maithri Aquatech has installed 'the world's first mobile water from air kiosk-cum-water knowledge resource centre' to educate the public on essential Water, Sanitation and Hygiene (WASH) practices, anti-pandemic measures and more.

Maithri Aquatech's goals are to display its ability to generate water in scale, while providing a positive impact of the project and support the UN Sustainability Development Goal 6: Clean Water and Sanitation.

Public water solution Rameswaram is affected by high-water salinity in the available water resources, which has reduced the availability of clean drinking water. As part of a CSR initiative, Maithri Aquatech had worked with a PSU to set up a public water solution, to supply clean, mineral-enriched, potable water free of cost, near the Abdul Kalam Memorial. A unit of Meghdoot, installed in this location, has been able to generate water on site, with zero dependence on the existing water sources. Meghdoot's widespread implementation will have the potential to create a positive impact on local communities by mitigating water scarcity.

The South-Central Railway (SCR) board was looking for a sustainable solution to conserve water in the Secunderabad Junction railway station. Maithri Aquatech, working with SCR officials, has installed 'the world's first water from air kiosk' with re-mineralisation technology' at the railway station. The Meghdoot water solution in the kiosk can give access to 1,000 litres of clean, mineral-enriched potable water daily, at an affordable price and benefits over 2 million individuals.

Visakhapatnam, a coastal city, is water-stressed, making it difficult for its residents to meet their drinking water requirements. Maithri Aquatech partnered with USAID and SWN (as part of its SEWAH initiative) and Greater Visakhapatnam Municipal Corporation (GVMC) to launch 'the world's first mobile water from air kiosk-cum-water knowledge resource centre' in the city in March 2021, to provide clean water. The kiosk also doubles up as a water knowledge resource centre (WKRC) to impart knowledge on good WASH practices and rainwater harvesting. It annually benefits over 200,000 people.

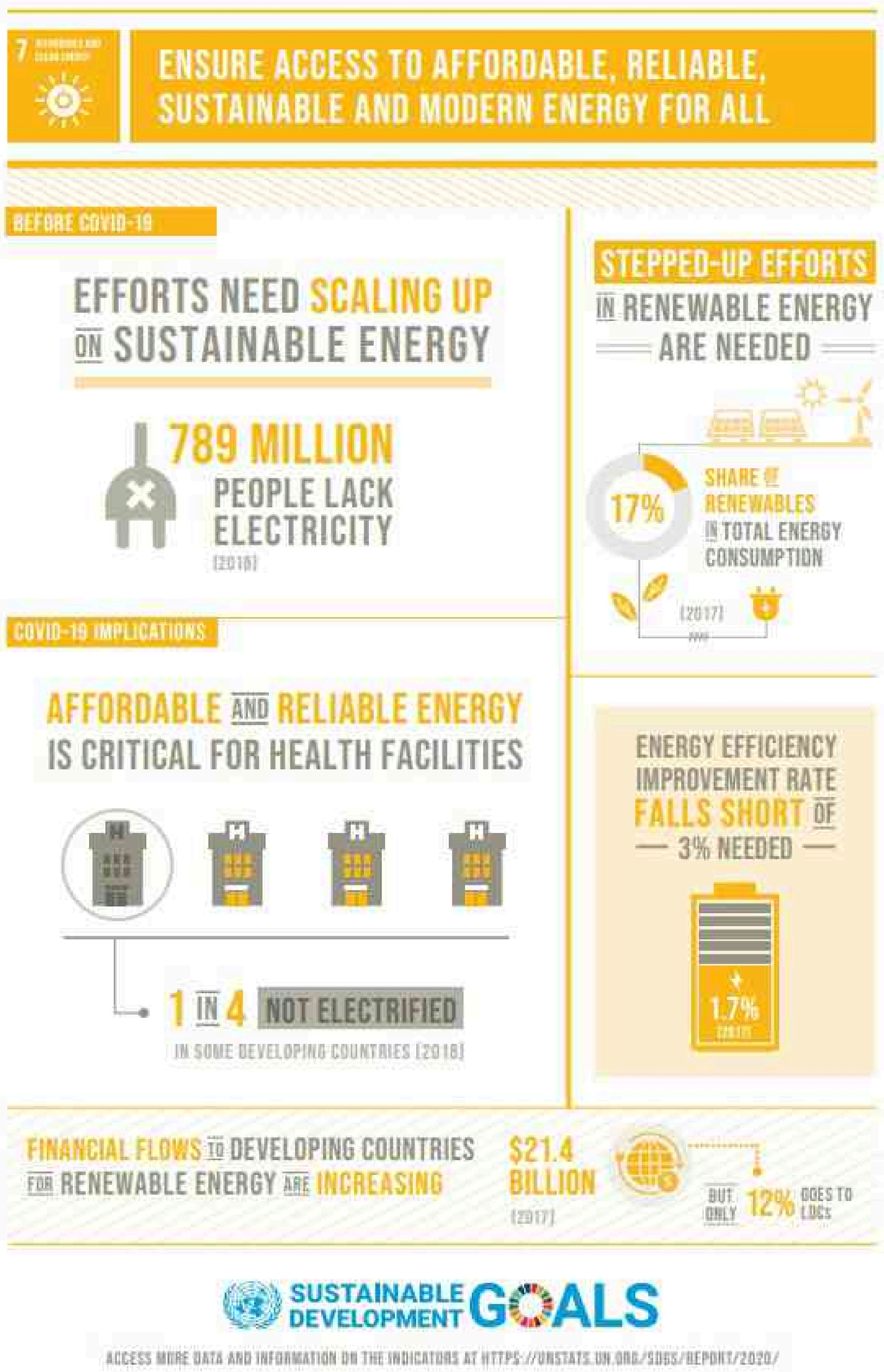
The water infrastructure in India is being developed and expanded now. Most villages are still reliant on local water bodies to meet their water requirements. Haas School of Business, University of California, Berkeley, is working with the government of India through the 'Smart Village Movement', to empower villages in India with the adaptation of disruptive, sustainable and innovative solutions. The focus of the projects is a cluster for villages in Meghalaya, where most of the rivers have water only during the rainy season. Groundwater is the largest accessible and yet underdeveloped resource in the entire state. There is also no infrastructure to pipe water to the villages in the hilly areas. Maithri Aquatech has been identified as a potential solution provider to meet the requirements of village clusters in Meghalaya, with Meghdoot generating clean water in this region.

Third-party potable water suppliers have been either charging a premium for ferrying water from other locations; their water purification plants often shut down too, as their sources of water are running dry. Maithri Aquatech's customers in Chennai are devoid of these issues, as they have reliable access to a personal source of water in Meghdoot.

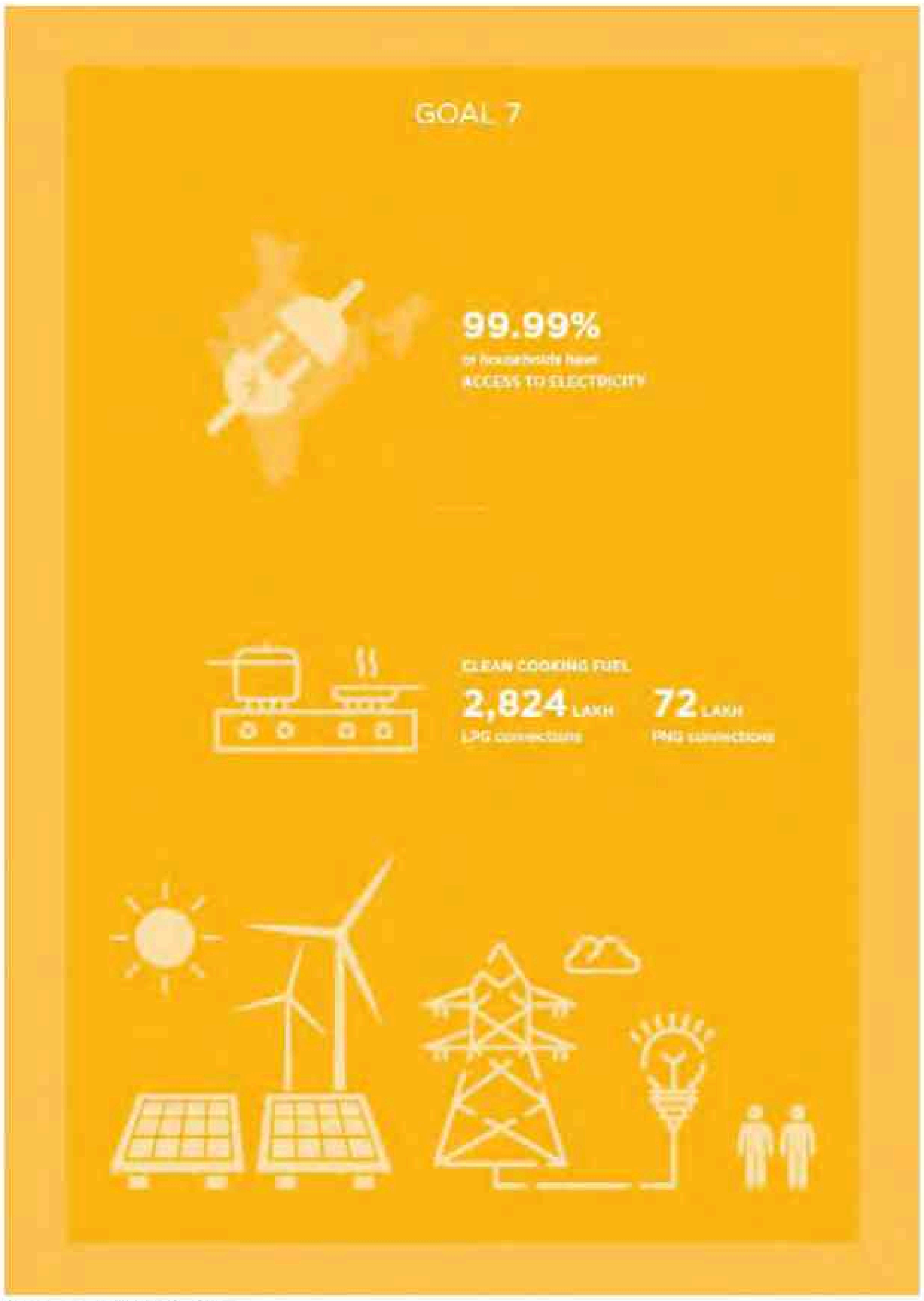
Thus, Maithri Aquatech is dedicated to mitigating water issues and sustainably providing water across the earth. ◆

Goal: Ensure access to affordable, reliable, sustainable and modern energy for all

SANJAY BORADE



Source: United Nations



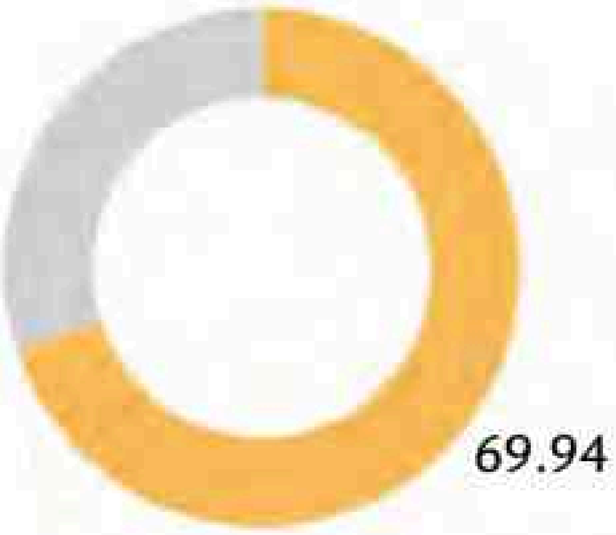
Source: NITI Aayog

7 AFFORDABLE AND CLEAN ENERGY

Country Rank

110/165

Score



UN Dashboard Status

Significant challenges ●

Trend

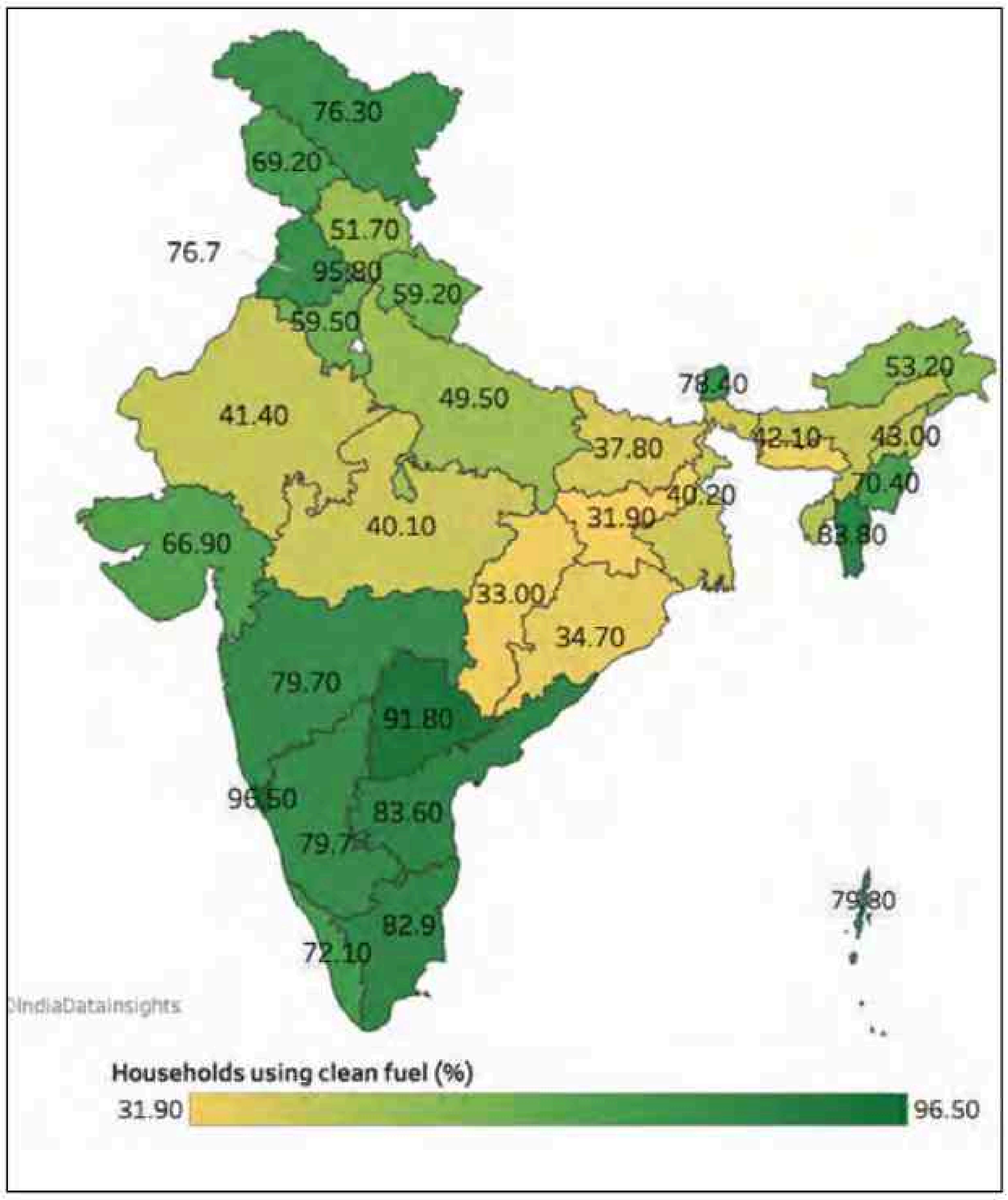
Moderately improving ↗

Affordable and clean energy is a modern-day need. India's targets to achieve this goal include:

- Ensure universal access to affordable, reliable and modern energy services
- Increase substantially the share of renewable energy in the global energy mix
- Double the global rate of improvement in energy efficiency
- By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
- Expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all

As of 2021, India ranked 110th in the world energy availability and access, and the country has shown promising signs as it is moderately improving

Electricity availability and usage



Compared to the increase in India's population, the availability of electricity in the country has shown consistent growth over the last three decades. From 1993 to 2019, the percentage of Indian population with electricity access grew from 50 per cent to 97 per cent.

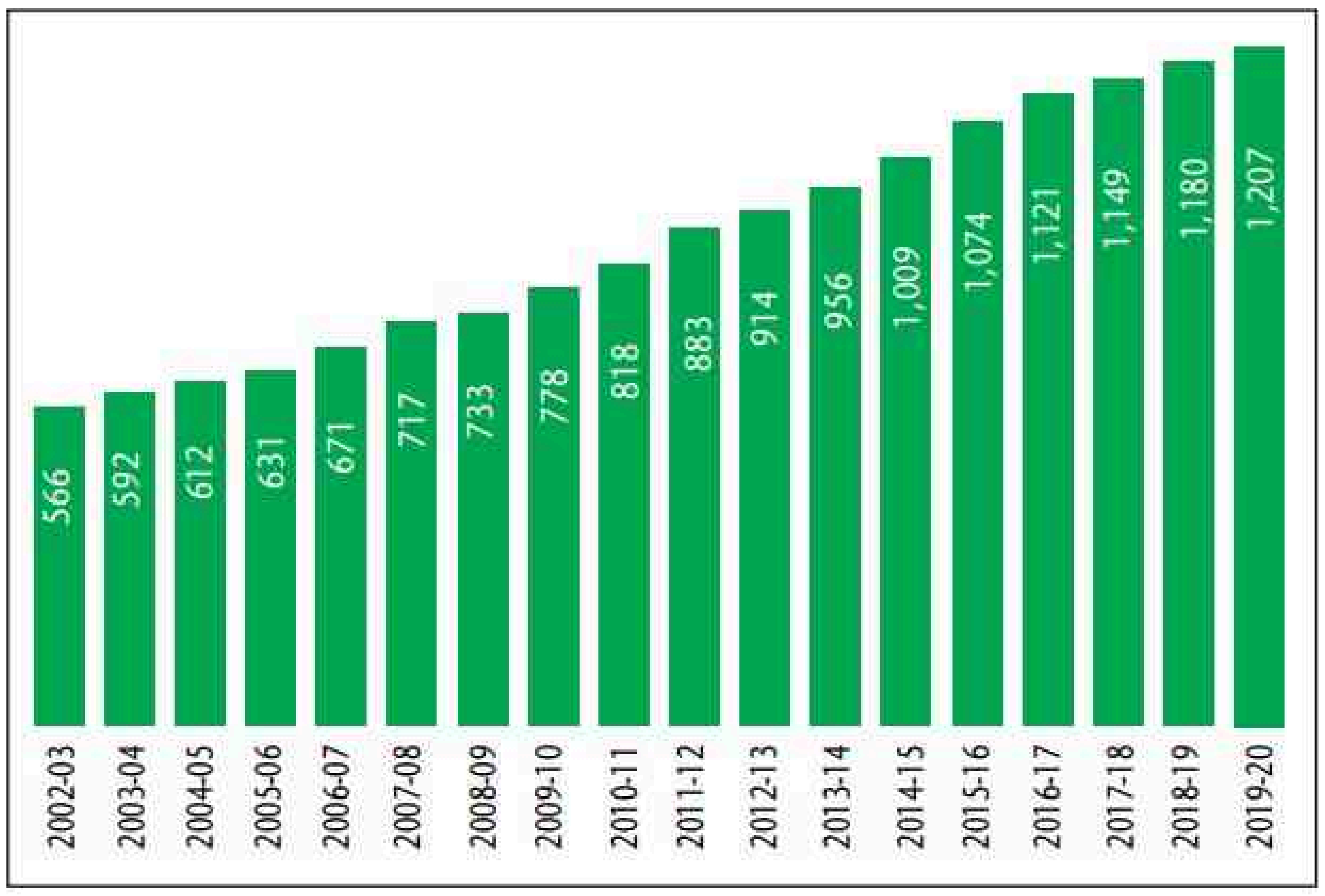
Despite an increase in availability of electricity, clean cooking fuel is still used across the nation. A 2019-2021 National Family Health Survey showed that 58.6 per cent of Indian households used clean cooking fuels (89.7 per cent of urban and 43.2 per cent of rural). This usage was predominantly seen in Goa, Telangana, Andhra Pradesh, Tamil Nadu, and Mizoram. Jharkhand, Chhattisgarh, Odisha, Bihar, and West Bengal showed the lowest utilization of clean cooking fuel.

Coal consumption

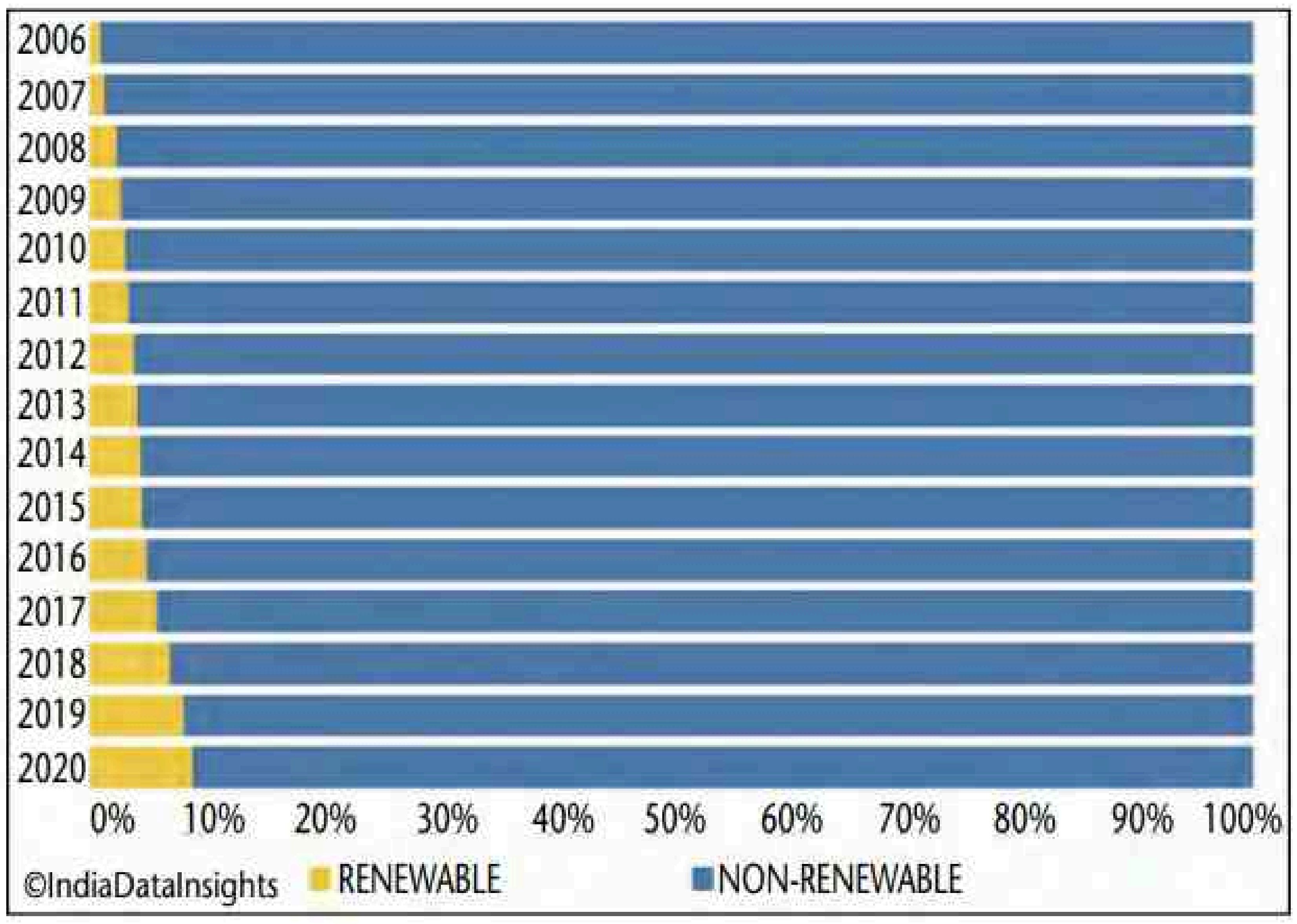
Coal remains one of the most significant contributors to electricity generation in India. Coal imports are highest during the last quarter of the year, with 2019 seeing 18.57 million tonnes of coal being imported.

Along with the high import rates, coal consumption seems to be greater than receipt in the 2nd and 3rd quarters. The highest consumption in recent years was seen in Q2 of 2019. Overall, coal consumption has been consistent, except for a slight increase in Q4 of 2018.

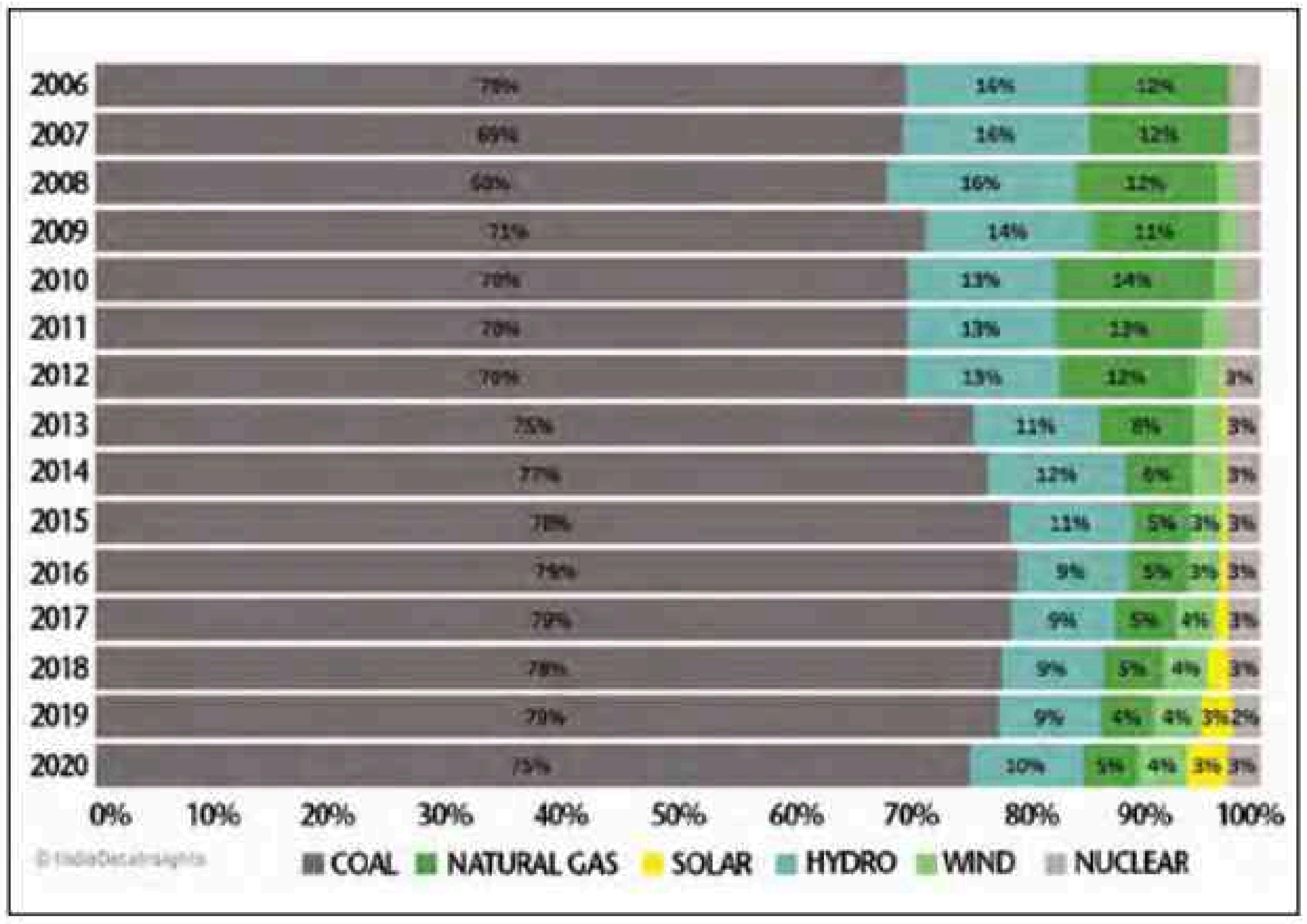
The high import rate of coal in the country helps fuel India's growing electricity consumption. In the last two decades, per capita electricity consumption increased 113 per cent from 566 kWh in 2002-03 to 1207 kWh in 2019-20.



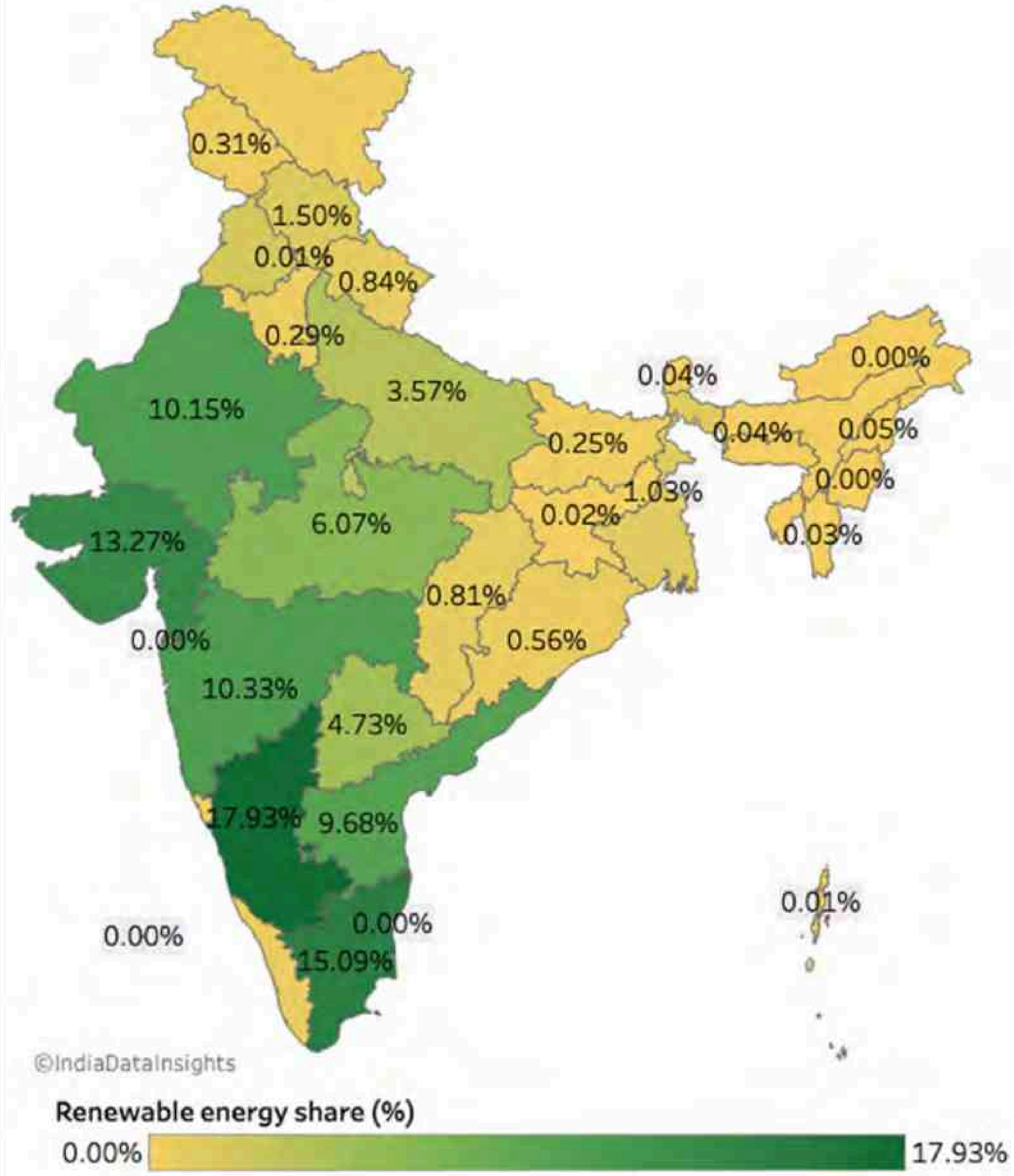
RENEWABLE POWER GENERATION



A positive sign is the increasing share of renewables in electricity generation. In 2020, India generated 1,45,091 GWh of energy from renewables accounting for 10 per cent of the total energy produced. This is a 9 per cent increase since 2006.



Within renewables, the share of energy produced by Hydro and Natural Gas has seen a steady decline over the last two decades, while wind and solar energy are growing in prominence. Nuclear energy generation has remained constant at 3 per cent Nuclear energy generation has remained constant at 3 per cent.


0.31%
1.50%
0.01%
0.84%
0.29%
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3.57%
0.04%
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0.25%
0.04%
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1.03%
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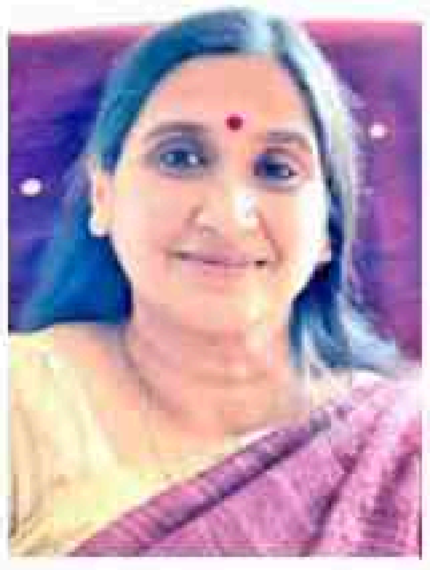
13.27%
6.07%
0.02%
0.03%
0.81%
0.00%
0.56%
10.33%
4.73%
17.93%
9.68%
0.01%
0.00%
0.00%
15.09%
©IndiaDataInsights
Renewable energy share (%)
0.00%
17.93%

Renewable Energy in India is growing in importance across many states, a hopeful sign for the country's future. Today, 66 per cent of India's renewable energy comes from 5 states - Karnataka (18 per cent), Tamil Nadu (15 per cent), Gujarat (13 per cent), Maharashtra (10 per cent), and Rajasthan (10 per cent). Jharkhand and the Northeastern States contribute the least to renewable generation. Through the combined efforts to increase renewables and enable larger access to electricity and clean cooking fuel, India is working towards its goal of providing universal access to affordable, reliable, and modern energy services by 2030.

Balancing economy and ecology

ONGC's initiatives ensure universal access to affordable and clean energy



Dr ALKA MITTAL

With the world population continuously growing, the primary energy consumption is also increasing manifold. On the other hand, the situation of our planet is rapidly changing with the dangers of climate change staring at us. The world, facing these two major challenges, is on the path of energy transition towards a low-carbon future to meet the growing energy demand as well as reducing GHG emissions. The global energy system is evolving at a more rapid pace than anticipated. Covid-19 crisis is further crystallising focus on what is essential: health, safety, and protection of the environment while providing energy and vital products that society needs to support economic recovery. In my view, all forecasts of global energy demand see significant use of oil and gas at least for the next few decades; the exact pace and path of the energy transition is uncertain, but, the end destination – a low-carbon energy system – is no longer in doubt.

In this context, when we talk about energy transition and energy planning for the future, it must be holistic as well as integrated. The issue needs to be viewed from the prism of energy poverty, energy security, and energy affordability, as many countries including India, are struggling to secure fossil fuels for their power generation and unable to obtain sufficient electricity from renewable sources. Since energy security and energy sustainability are closely linked, the sectorial oil and gas companies have begun realigning their portfolios of low-carbon and zero-carbon projects to remain profitable in the net-zero world. Needless to say, an increased focus on clean sources of energy such as solar, wind, and hydrogen into our future energy mix will foster better balance between the economy, ecology, people, and prosperity.

India is an emerging superpower aspiring to become a $5-trillion economy by 2025. It is uniquely positioned to significantly contribute to achieving SDG-7, ensuring access to affordable, reliable, sustainable and modern energy. With the world's second largest population and being the fastest growing energy market in the world, India's energy demand is likely to double by 2050.

Resonating with the principles of SDG-7, India is a shining example among developing economies, marching ahead with many significant transformations. Our Prime Minister is leading from the front in implementing much needed reforms aimed at achieving secure, affordable and sustainable energy that can power robust economic growth. Despite India's net-GHG emission being quite low, the Government of India has launched several social welfare schemes aimed at providing clean energy; for example Pradhan Mantri Ujjwala Yojana, whereby smoke-free LPG connections are provided at concessional rates to help families switch to cleaner energy sources thereby improving the environment and health of people. Leading further in energy transition as well as energy efficiency, the Gram Ujala Scheme offering the world's cheapest LED bulbs in rural areas has tremendous potential to uplift India's villages and contribute to climate change mitigation. In response to the Prime Minister's clarion call on Atmanirbhar Bharat, the country is developing and promoting the use of alternative and environment-friendly in-house fuels like ethanol, biodiesel, compressed biogas, which have the potential to turn around the energy sector as well as socially and economically uplift farmers by paying them remunerative prices.

India's energy mix has historically been reliant on oil and gas, coal and biomass, which cater to more than 90 per cent of our domestic energy needs. The National Oil Companies (NOCs) play multifaceted and complex roles in our economy and, at times, are not solely driven by revenue maximisation. Let us take the example of ONGC, which has to keep contributing to the economic development with social equity, along with energy supplies. We have been playing the definitive role of the leading energy provider for India for well over six decades. I am confident that we will continue to do so for several decades to come. Since the last six years, ONGC has made concerted actions towards a cleaner future, optimising its resources and energy usage due to which our Emission Intensity (CO_2 emissions per barrel of oil produced) has significantly decreased. The gains will only further intensify. We have also reduced our gas flaring substantially. In line with our energy blueprint for 2040, we are sharpening our focus on climate-related aspects of operations, be they clean energy sources like solar, wind or geothermal. We have already started increasing our footprint in the renewables, targeting over 10 GW of installed renewable capacity by 2040.

To contribute to the objectives of SDG-7 on affordable and clean energy, ONGC as a responsible integrated energy company, is fully geared to become a catalyst in this transition towards an era of fuels which will be abundant, energy-efficient,

The author is Chairman & Managing Director, ONGC

and clean. To ensure sustainability across the hydrocarbon value chain, ONGC is also working on ramping up its petrochemical capacity and scaling up its refining capacity to more than 50 MMTPA. However, being a premier NOC, mandated with the responsibility to secure energy supplies, ONGC will continue to pursue exploration programmes to maximise its reserve base to produce more and more oil and gas, albeit with greater focus on Environment, Sustainability and Governance (ESG) parameters. ONGC is in a good position to lead in the low-carbon energy space, borrowing heavily from its own core industry resources and competencies, for example, in carbon capture, utilisation and storage (CCUS), geothermal and in offshore wind. ONGC is exploring various opportunities in energy transition technologies like biofuels, green hydrogen, and electrification to provide affordable and clean energy solutions to Indian citizens, exploring cross-sector partnership models and engaging with start-ups and technology development partners to tap into new ideas emerging from outside the industry. The ONGC Energy Centre is engaged in coordinating such fundamental research which is bringing low-carbon fuels to market.

Optimising its resources and energy usage ONGC has made concerted actions towards a cleaner future

The UNSDGs provide a composite picture for building holistic and sustainable efforts to achieve wholesome well-being and growth of the people and planet. We are now at a crucial moment in the journey to the climactic year 2030. With barely eight years left to achieve the global goals, we must act together to ensure that the benefits of development reach everyone and everywhere. The course ahead must be charted together, through a 'whole-of-society' approach, building on partnerships with all stakeholders.

At a time when climate change has reached a critical juncture and the whole world is striving to bring about a change in the way we use energy, all stakeholders are now required to come together to fast-track this transformation. The aftermath of the pandemic and also carbon footprint reduction pledges, especially coming out of the recently held COP26 climate meeting, provide strategic opportunities for energy companies to ensure access to affordable, reliable and modern energy services to all while shaping economic recovery after the pandemic. Technology will prove to be a valuable tool in this energy transition. Intelligent use of energy across the entire chain of energy consumption will drive greater energy efficiency and process optimisation.

I am hopeful that, collectively, we can progress as one and accomplish SDG-7, ensuring universal access to affordable and clean energy to our people by 2030. ◆

Striving towards **Zero Poverty,** addressing at the roots, phenomenal

Prof. ACHYUTA SAMANTA

Achyuta Samanta (www.achyutasamanta.com), founder and mentor of KIIT and KISS has a trail of an interesting trajectory of life. He was born to Neelima Rani and Anadicharan Samanta in 1965. Unlike children blessed with abundant care, comfort and compassion get nurtured by affluent parents, Achyuta's childhood was different. Most difficult, grief-stricken and full of struggle. When his father died in a tragic train accident, Achyuta was just four years old – the family thereby being deprived of the only breadwinner.

BATTLING THE OUT OF THE ORDINARY ODDS

At such a tender age, because of this stroke of misfortune, Achyuta realised the pains of poverty his family had to face. After exhausting his meagre savings, his father, a petty worker, had taken a huge amount of loan to support his seven children and wife. The debts and poverty were bequeathed to the family, after Samanta senior's untimely death.

In such dire circumstances, all the seven siblings started struggling to survive, along with their widowed mother in Kalarabanka, a remote village in Odisha. At four, Achyuta started struggling for his survival. And, so, while growing up, understanding the difficulties, he started assisting his mother in household chores and other menial jobs, to support the family income.

His upbringing in the midst of nature and hardships took place in a remote village, with no amenities, not even basic, which were to come by only after 45 years. He had grown up in a thatched house – just like a cowshed – left by his father.

AURA OF MOTHER VS DOOMSDAY

His mother had to face unending struggles. Showing commitment and determination, she did odd menial jobs to manage two square meals a day for her children. Sometimes, they did not have food for the night. The siblings managed to study and get a formal education, besides helping their mother.

THEN RISE OF A PHONEIX

Achyuta completed his intermediate class examination with distinction, despite financial distress. He graduated and post-graduated in chemistry and was engaged in private tuitions and mentoring for funding his education and helping his siblings. He earned masters' degree in Chemistry in 1987 from Utkal University, which was followed by a doctorate in Social Sciences. He started teaching at the age of 22.

Such a person, whose childhood was steeped in miseries, is today, the youngest chancellor of any Indian university, as chronicled by Limca.

RECORDS FOLLOWED HIM

Book of Records. Founder-chancellor of KISS University (first Tribal University in the world) and also the first person to be a chancellor of a tribal university anywhere in the world, he created Kalinga Institute of Industrial Technology (KIIT: deemed university – www.kiit.ac.in) and Kalinga Institute of Social Sciences (KISS: another deemed university – www.kiss.ac.in) in 1992-93, with $100 (about Rs5,000 then), in Bhubaneswar, in a two-room rented house.

KIIT and KISS have been chronicled in the Limca Book of Records on four counts. It has also created four Guinness World Records. These institutions have contributed to the social uplift, spiritualism and sports, by creating unparalleled sports infrastructure and promoting sportspersons and sports activities.

Their unstinted efforts transformed the remote village Kalarabanka near Cuttack into a smart village and the entire Manpur Panchayat into a model panchayat (cluster of villages). Samanta is working to establish 20 branches of KISS in different districts of Odisha and another 20 branches across the country. He has established KISS, Delhi, in 2013 for the underprivileged sections of the society and two branches of KISS in Bangladesh.

These institutions have provided employment to about 15,000 people directly and over 200,000 indirectly; they have also created 100 successful entrepreneurs across the country.

While KIIT has become one of the most acclaimed and recognised Indian Universities that provides professional education to 30,000 students from India and abroad, KISS too has become the world's largest tribal educational institution – home to 30,000 'poorest of the poor' tribal children, who are given free education from Kindergarten to post-graduation, along with other avenues of comprehensive development. It also provides a home for 60,000 tribal children (30,000 students in KISS Bhubaneswar; 20,000 alumni, 10,000 in 10 satellite centres in 10 districts of Odisha). KISS's alumni strength is 20,000, offering decent professions and livelihood, besides creating a wave of change in their communities through satellite centres of KISS in 10 districts of Odisha. KISS is the first exclusive tribal university in the world. Trudging through all these educational exercises, Samanta has acquired 34 years of teaching experience now.

Samanta was decorated with the Gusi Peace Prize International, Manila (Asia's Peace Prize), while also receiving the ISA award for service to humanity

Samanta was a principal advisor to the department of education, the government of Manipur too, nominated by the governor of Manipur. He served as a general president of the Indian Science Congress Association (ISCA) during 2017-18 and as the president of XXXIX World Congress of Poets (2018-19).

Among his other activities, he is a volleyball enthusiast and the president of the Volleyball Federation of India (designated). President (India) of Democracy without Borders, he has also founded Parliamentarians for Indigenous People. He was honoured with a national award for the welfare of children by the President of India in 2017.

Art of Giving, an initiative started under his auspices, has been awarded the MacJannet Prize 2021. Before that, he was given the Sandipani Maharshi Samman 2020 by Sandipani Vidya Niketan, Gujarat. He was also awarded the 'personality of the year 2019' by the FICCI Higher Education Awards.

Other honours and awards bestowed on him include the Green Activist Award by the Indian Federation of Green Energy; the Jeevan Gaurav Puraskar (Lifetime Achievement Award) at fourth National Teachers' Congress by MIT World Peace University, Pune (2020); 48 Honoris Causa Doctorate Awards from prestigious Universities across the globe; and four national and international fellowships – ISTE, CSI, ICA & APACH. The Golden Gavel award given to him by the World Academy of Arts and Culture (WAAC) has been recognised by UNESCO too.

Samanta was decorated with the Gusi Peace Prize International, Manila (Asia's Peace Prize), while also receiving the ISA award for service to humanity, the highest civilian award with $1 million cash prize, from the Kingdom of Bahrain. Other honours that came his way were the highest civilian award from Mongolia and Bahrain; more than 50 national and international accolades and over 200 state honours.

ADDRESSING THE BOTTOM ISSUES

The whole world – policymakers, educationists, economists, et al – talk about 'poverty alleviation through education' as a solution, to address the global problems that exist today. This cardinal principle has been the very foundation of KIIT and KISS. It was envisioned, implemented, executed and achieved by Samanta inues the true sense for the last 25 years.

He initiated KIIT and KISS, when there was not adequate awareness about professional education in Odisha. Tribal education in an innovative model was not even thought of. It was a grey area where every stakeholder failed or did not muster up the courage to initiate the first step. Samanta founded these two institutions during that period, despite such a dismal scenario. His initiatives have become a pride of Odisha, India and the world today.

He strongly believes that his cause is not only about providing opportunities and arranging certain facilities for the deprived but beyond it, by enabling the complete transformation of children. The students have excelled in academics and co-curricular activities.

Samanta's contribution is not confined to only academics and education. It pervades to rural development, women empowerment, social service, low-cost healthcare facilities, art, literature, media, culture, entertainment and spiritualism.

BEAUTY IN SIMPLICITY

Despite his spectacular success and achievements, he leads a simple and dedicated life in a two-room rented house as a bachelor, dedicating himself to the service of humanity, with patience and passion as his strength and humility, simplicity, modesty and transparency as his assets.

Achyuta Samanta is a Member of Parliament (Lok Sabha) from Kandhamal, Odisha today, representing Biju Janta Dal. He was Member of Parliament (Rajya Sabha) during 2018-19. Samanta also served as a member of three apex educational bodies of India – the University Grants Commission (UGC) for two consecutive terms (2008-11 & 2011-14), the executive committee of All India Council for Technical Education (AICTE) and the National Council for Teacher Education (NCTE).

He also served as a member of several other bodies of the government of India like NCTE, ISTE, ISCA, Coir Board, CAPART, etc, besides being a member of the Academic Council of Central University of Assam and Odisha.

Professor Samanta has authored a biography on his mother, My Mother, My Hero. He has been working relentlessly to achieve zero poverty, zero hunger, and zero illiteracy since 1987.

Engineering a clean energy transition

We can create access to clean energy in the required quantities in India

DR. ANIL KAKODKAR

Access to affordable clean energy in required quantities that does not harm local, regional as well as global environment or cause unacceptable waste management burden is the key to sustainable development. SDG-7 is about ensuring access to affordable, reliable, sustainable, and modern energy for all. This must be done while taking urgent actions to combat climate change and its impacts (SDG-13). For a large and diverse country like India, with significant disparity and unfulfilled development aspirations, this is a complex challenge. Ensuring sustainable energy consumption and production patterns as required by SDG-12 should guide us in terms of leveraging clean energy sources and reduction of waste through prevention, reduction, recycle, and reuse. Heavy dependence on unevenly distributed fossil energy resources has brought the world closer to the tipping point through erratic climate change as a result of global warming over and above the energy related geopolitical instabilities. While there is awareness of this serious consequence in terms of our very survival, a consensus on a timely satisfactory collective action still eludes us. SDG-16 and 17, particularly in the context of effective and collective global actions, are therefore important.

We need to engineer India's clean energy transition in this overall context. We have announced 2070 as the target date to reach net-zero. It would be safe to assume that our per capita energy consumption by that time would comfortably cross the threshold of 2,400 Kilogram Oil Equivalent (Kgoe) per capita that would assure a Human Development Index consistent with the best worldwide. This would translate to a total energy consumption need of the order of 45,000 billion units (kWh) of energy. Nearly all of this would have to be clean energy in a net zero India. Today, we use energy in the form of electricity and solid, liquid, or gaseous fuels in our industries and residential segments. Agriculture uses electricity and liquid fuels while transport needs liquid or gaseous fuel. Most liquid and gaseous fuels are of fossil origin while biofuels have started appearing on the scene. The clean energy transition that we expect to see should change the complexion of energy at the user end to green electricity, green hydrogen and bioenergy; with industry using electricity and hydrogen, residential and agriculture using electricity and bioenergy (gas or liquid), and transport using electricity and hydrogen.

Non-commercial energy in the form of firewood and animal dung has been a prime source for energy in rural areas. This, along with other biomass resources in the country like surplus agricultural residue, surplus forest residue and municipal solid waste, could constitute an energy resource equivalent to around 2,500 billion units. This is significant and I strongly recommend it for catering to the needs of our residential and agriculture domain, along with electricity. This could be in the form of clean cooking gas or energy for agricultural equipment like tractors. Several technology options are available. It is important that our policy thrusts should be technology agnostic and driven by goals like decentralised biomass collection and pre-processing which would have significant impact on rural economy and dynamics, finished products manufactured at scale and their marketing/distribution and end use (energy delivered to kitchens in rural/urban areas, and to agricultural machinery). One must ensure that the ecosystem that we build remains non-exploitative of the people at the grassroots (SDG-8).

A key feature of the transition that we need to recognise is the role of electricity and hydrogen. Electricity, which currently constitutes around 18 per cent share in total energy use, will play a much bigger role not only because of being more efficient and convenient form in terms of end use (such as e-mobility) but also because it would constitute a much larger share at the primary energy production level. For example, major resources like solar, wind, hydro, and nuclear primarily produce electricity as a first step. Even production of green hydrogen would need electricity if steam electrolysis becomes the production method of choice. There is, of course, the alternative to split water through thermochemical means directly using the high temperature produced using solar, thermal or nuclear technology. These technologies are evolving, but in principle, it seems to me that the thermochemical route would eventually produce cheaper hydrogen. If that becomes a reality, then the increase in share of electricity could get limited to around 35 per cent of the total energy use. If that is not the case and we need to produce hydrogen using electricity, then the share of electricity could become as large as 80 per cent. Clearly the electric power business would grow both because we need more energy but also because we expect a major transition towards electricity.

With its potential as a feedstock, energy carrier and storage medium, hydrogen offers significant prospects to decarbonise large sectors of the

The author is Padma Vibhushan, Chancellor, Homi Bhabha National Institute; former Chairman, Atomic Energy Commission

economy, such as transport and industry, particularly in hard-to-abate areas such as energy intensive industries or long-haul transport, where electrification is only partially possible. Hydrogen-powered fuel cells driving electric power transmission for heavy long-distance transportation are soon expected to become popular due to better viability and freedom from range anxiety while battery-powered smaller electric vehicles would become the main choice for short range in-city transportation. The use of green hydrogen in industries like fertiliser, iron and steel and adoption of carbon capture and utilisation (CCU) as well as carbon capture, utilisation and sequestration (CCUS) where use of fossil carbon or hydrocarbon remains inevitable, would clearly play an important role in the transformation of our industry sector.

Let us now look at the energy resources available to produce energy equivalent to 45,000 billion units. Detailed estimates by Prof Sukhatme suggest the total renewable energy potential (including solar, wind, small and large hydro, biomass and tidal) in the country to be at around 5,855 billion units. Even after accounting for additional biomass potential of 2,500 billion as discussed earlier and likely uncertainties in the estimates, it is clear that the large gap that still exists would have to be bridged by nuclear, the only other available non-fossil energy with high enough potential. While the bulk of this large energy requirement can only be met by large capacity plants, a decentralised mode of energy production has its own value in terms of local self-reliance, rural economy and livelihood like in the case of biofuels discussed earlier. Local microgrids in the case of electricity production, should also be linked to the main power grid. There is also merit in making local microgrids DC so they are solar panel compatible. This brings in both efficiency and economy. Work done at IIT Bombay for making solar products in cottage industry mode and at IIT Madras for DC microgrids is noteworthy in this regard.

The next big question would be the stability of grids and the additional cost to consumers, depending on the energy mix and related investments. Generation sources like nuclear, hydro and biomass are steady generation sources whereas sources like solar and wind are variable generation sources. The design of the grid and the peak load capacity has to take into account variability in load demand as well as variability in generation. Studies have shown that as one approaches net zero, a mix relying primarily on nuclear energy is the most cost-effective option to achieve the decarbonisation target. We need similar detailed studies in Indian context to correctly inform our policy making.

Talking about nuclear, our domestic self-reliant development has enabled the country to deploy Pressurised Heavy Water Reactors (PHWR) with almost 100 per cent value addition within the country. These reactors have demonstrated a world-class performance and have made global records for the longest uninterrupted runs. The specific capital cost of these systems is about half compared to their counterparts in the international market. It thus makes sense to rapidly scale up nuclear capacity addition through work on several fleets of 700 MWe PHWRs. In addition, we should quickly develop a Small Modular Reactor (SMR) as a new Indian product that can make use of sites vacated by retiring coal power plants and augment nuclear capacity addition. Indian corporates have done well in the manufacture and construction of nuclear power plants. It is time they also develop new products and prepare for participation in the nuclear business in a more holistic manner without losing advantage of 'make in India' in a self-reliant manner.

It is thus clear that in India we can create access to clean energy in the required quantities and that planning and implementation for clean energy transition is a highly interconnected process that needs an integrated view and collective action on the policy, technology, and industry front. Doing this should nearly eliminate the need for energy imports. Most of the necessary technologies are however still under development. Rather than local energy economics being driven by global markets, we should drive development and deployment of technologies and their prices through a policy leveraging Indian needs and size of the Indian market. An integrated approach thus becomes all the more important. ◆

A vision for North-east India

A few, critical measures can expedite focussed action on hydro resources

V. K. SINGH

The Prime Minister has announced an ambitious goal for India -- to add 500 GW to the installed capacity of renewable energy sources by 2030. This is to help reduce carbon emissions of concern at the global level. This creates a grand opportunity for North Eastern Electric Power Corporation (NEEPCO) to support India's stated mission by enhancing its installed capacity of green energy generating hydro and solar power plants. India's nationally determined contribution statements also provide the necessary impetus to the move.

Three important facets of NEEPCO's efforts inspire commitment to fast-track development in India's north-east and deliver in alignment with goals set by the government of India.

The first is about enhancing its installed capacities. NEEPCO's present installed capacity of 2,057 MW is spread over north-eastern states. They include 1,525 MW from six hydro-power generating stations, 527 MW from three large, combined cycle gas-powered stations and a 5 MW solar plant. Its relentless efforts have secured an additional 19 large hydropower projects, totalling 17,688 MW in India's north-east. NEEPCO will deliver on this front through a strategically important joint venture with NHPC. All problems typically encountered in the development of every hydro project are tackled through innovative mitigation measures. These are derived from major policy interventions of the Central and the state governments.

The second facet is about the policy milieu set by the government of India that fosters hydro-power development. It treats hydro-power plants of all sizes as renewable energy sources. This goes ahead of the earlier stand that only such plants of less than 25 MW installed capacity were treated so. The government has mandated that hydro purchase obligations (HPO) within the non-solar renewable purchase obligation (RPO) basket will incentivise and accelerate hydro-power projects. The need to cover transmission lines between hydro-power stations and nearest pooling points is mooted to be supported by government grants for infrastructure development, which includes flood moderation. Equally important is the need to rationalise transmission tariff from hydro-power plants to the delivery points in far offload centres of the country. This is to make the cost of delivered hydropower to the power distribution companies affordable. For this purpose, a targeted grant is mooted, especially for remotely located hydropower plants, on a case-to-case basis.

The third facet is about NEEPCO's deep engagement on advocating fast-tracking time-bound single window clearances for the hydro projects. Multiple clearances from various entities of the central and state government are typically required. These, for instance, include techno-economic clearance involving various clearances from CWC, CEA, GSI, CSMRS, legal, inter-state or international clearances, security clearance and tribal affairs. These are in addition to environmental clearance, forest clearance, wildlife clearance, as may be applicable; besides issues of land availability, NOCs from fisheries, mineral, cultural and irrigation department, etc, consent from Pollution Control Board to operate and clearances from Defence or MHA, as needed. A host of other policy enablers too have to be addressed.

NEEPCO appreciates the need to make land evacuees associated with a hydro project to overcome resistance to land acquisition for a project requiring huge tracts of land. The present dispensation is that 12 per cent free power is given by the project developer to the host state government. This is in addition to 1 per cent for the Local Area Development Fund (LADF) with matching 1 per cent contribution from the state government. Thus, the pool of fund for LADF is equivalent to 2 per cent of the power generated from the project. However, land evacuees do not appear to view this as a direct benefit. They could therefore be offered 2 per cent free equity in the project instead of 2 per cent from the LADF. This model has worked successfully in Canada in respect of hydro-power development, where free equity is given to the land evacuees known as 'first nations'. Several more conflicting interest groups impose additional administrative problems, as per the present model of LADF.

To avoid system leakages and pilferages, a 2 per cent equivalent equity amount is proposed to be transferred to the bank accounts of the land evacuees through Aadhar-linked Direct Benefit Transfer scheme. Actual flow of benefit is proposed to happen after commissioning of the hydropower project to ensure continued interest/ support of the land evacuees. The free equity certificates can be given to the land evacuees at the very beginning on announcement of the project, so that apprehensions do not creep into their minds. While hydro-power is compared with other renewable sources like solar and wind, backed by Battery Energy Storage System, it will be invaluable to enable a quick ramp-up, resilient, flexible and robust system stability.

These easy to implement suggestions and policy interventions are based on real life experiences of difficulties on the ground. These few, yet critical measures can expedite focussed action on our vast hydro resources to meet our national and global commitments. ◆

The author is chairman & managing director, North Eastern Electric Power Corporation

University social responsibility

For a sustainable and green planet

Institutions have a responsibility to conduct their operations in a sustainable and ethical manner. The benefit of it is borne out by the fact that 'responsible businesses' have a positive correlation with 'return' in terms of both profit and impact. Managing all stakeholder interests, forging win-win solutions and creating a long-term sustainable operating model have become fundamental for success. The SDGs give a comprehensive framework, contributing to which will help businesses make a lasting and positive impact on the challenges faced by humanity, like poverty reduction, quality education, affordable and clean energy, decent work and economic growth.

RAJITA KULKARNI

At Sri Sri University (SSU), we are committed to preserving and nourishing our planet and take 'university social responsibility' seriously. All our operations, initiatives and efforts impact every SDG in a constructive & lasting manner. Particularly of focus is SDG-7.

We are doing several things in this regard. We follow the prevailing energy efficiency standards in India for our renovation and constructions of buildings. The policy for energy efficiency standards for buildings has been aimed to decrease the carbon emissions, to optimise electricity consumption and minimise wastage to reduce the running cost. The relevant measures include the buildings designed for reduced heat absorption and temperature control, natural ventilation, lighting and natural laterite stone for construction, smart classes, use of LED lights in the hostels, and use of local materials for construction. To enhance energy efficiency, the 8Kw solar panels are installed in the campus, which generate 35 units of electricity every day and about 13,000 units per year.

There are energy meters in every building to monitor electrical consumption. Some of the energy-efficient appliances used are Grundfos pumps for water applications in the campus, solar streetlights and pumps, LED streetlights and air source water heaters with COP of 4 for hot water. The VRV (variable refrigerant flow) technology for air-conditioners does energy saving of almost 35 per cent. Carbon emissions per capita of India stand at 1.6 tonnes well below the global average of 4.4 tonnes, while its share of global total CO2 emissions is about 6.4 per cent. SSU had total carbon emissions in the year 2019 as 1,692 tonnes, the per capita emissions were well below one.

Skill development on solar energy SSU Skill Centre has an advanced Solar Lab, equipped with all applications of 'solar renewable energy', along with basic electrical lab to cater solar trainees and electrical trainees, in collaboration with Schneider Electricals, since December 2015. So far, we have trained over 300 rural unemployed youths. After completion of their training, we have facilitated their placement and helped them with self-employment. Our trainees are placed at Tata Steel, BSL and Jindal Steel & Power.

Low-carbon innovation SSU is committed to developing renewable energy in the campus and to assist people through various start-up schemes. Sandhyasri Solar is one of the incubated start-ups of the university, the vision of which is to promote solar technology across the state of Odisha. The company supplies low-cost solar energy to farmers and under-privileged families. The university assists the company in mentoring and networking support.

Key result areas From Sri Sri University's success in these initiatives, it is safe to say that whether it's an academic institution or a business enterprise, if the following three KRAs are addressed effectively, there could be substantial success in achieving SDG-7:

- Encourage the three 'R's: reduce, reuse, recycle;
- Invest in renewable energy; and
- Reward responsible behaviours

The empowerment of board members towards SDGs is the critical success factor for any corporate for success in achieving SDGs. In addition to this, other critical success factors are impact-oriented business model, integrating SDGs into the business strategy, defining operational KPIs to meet SDGs, productive engagement with community, methods and tools for using SDGs and dedicated resources for ownership of SDGs.

> **The prime outcome of contribution towards any SDG will have a definite social value creation, which has a high correlation with the sustainability of the business**

The perception about outcomes of SDGs varies from organisation to organisation. The prime outcome of contribution towards any SDG will have a definite social value creation, which has a high correlation with the sustainability of the business. Not only the profit but also the responsible business behaviour will have a great role for organic growth of any enterprise.

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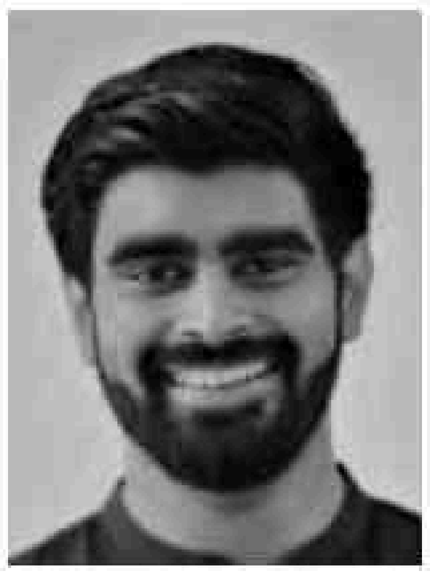
The author is President, Sri Sri University

Indian CSR's clean energy transition

Corporations have a special role to play as adopters and supports of innovation

NALIN AGARWAL



RISHI NAIR

The mission statement of SDG-7 focusses on three aspects: improving access to affordable, reliable and modern energy services; increasing the share of renewable energy in the global energy mix; and doubling the rate of improvement in energy efficiency across the globe. Fulfilling this goal is becoming more important as the global demand for energy rises. Given the 2030 target to achieve SDG-7, we are at the midway point in this journey. It is important to take stock of what we have achieved as a global community and understand what more we need to do.

Where the world stands on SDG-7: Currently, 770 million people still live without access to electricity, most of who live in Africa and parts of Asia. The last two years of Covid-19 have exacerbated this existing inequity. According to *Our World in Data*, fossil fuels accounted for about 84 per cent of global energy production in 2019. Wind and solar PV, the two main sources of clean energy, account for only about 3.3 per cent. Nuclear, hydro, and biomass form the remaining chunk of the energy mix.

Many countries have committed to increasing their renewable energy capacities in the next 10 years. Yet, this is still not enough. If we are to hit net zero emissions by 2050, we need annual global clean energy investments to more than triple by 2030 to about $4 trillion.

Where India stands on SDG-7: India's economic growth over the last decade has led to surging energy demand – up 50 per cent between 2007 and 2017.

In **clean energy generation**, India is already the world's third largest renewable energy producer. It has set a target of increasing its renewable energy capacity to 500 GW by 2030. Solar and wind account for a major chunk of the planned capacity increase (450 GW). The other contributors are hydro and biomass. In the pandemic year 2020, even when key growth drivers like material demand, car sales and energy demand dropped, it was heartening to note that India's renewable energy capacity increased by 5 per cent.

In terms of **energy access**, CEEW's India Residential Energy Survey 2020 showed that 96.7 per cent of households in India have access to the electricity grid. Officially, just 2.4 per cent of households are unelectrified, with the majority in Uttar Pradesh, Chhattisgarh, Rajasthan and Bihar. As expected, many of the unelectrified homes are in rural areas, which have a greater number of impoverished households. To address this, the Central government's Saubhagya scheme offers a free grid connection to eligible households. However, many of these households are not electrified, either because of a lack of awareness or an inability to afford the extra monthly expenditure.

In **energy efficiency**, the government of India has set up several initiatives. One such is the Ujala scheme. Under its ambit, 100 million LED bulbs have been distributed across the country, making it the second largest user of LED bulbs in the world. This has contributed to ₹1,600 crore in savings for households in India. Nevertheless, there is substantial room for improvement via greater energy efficiency measures in the residential, SME and transport sectors.

Notwithstanding the latent demand from unelectrified consumers, India is relatively sufficient in power generation. Yet, a key challenge remains: systemic inefficiency in power distribution. Despite positive developments, 76 per cent of the country continues to face unanticipated power cuts. Specifically, two-thirds of India's rural population and two-fifths of its urban population face power outages at least once a day.

Towards energy sector targets: At the 2015 United Nations Climate Change Conference in Paris, India pledged to source 40 per cent of its power from non-fossil sources by 2030. As of December 2021, of the installed 390 GW power capacity in the country, 156 GW (40 per cent) came from non-fossil fuel sources. Incredibly, we achieved our 2030 goal nine years ahead of schedule.

India has thus increased her ambitions, with a revised 2030 target of 500 GW of renewable energy capacity. To get there, we need annual clean energy investments of $35 billion. Yet, the current annual clean energy funding is $14 billion, which is 40 per cent of the required amount. Another largely untapped opportunity lies in the Indian energy efficiency sector, a $150 billion market. Investing in SDG-7 targets in India is a potentially lucrative opportunity.

Going forward in India's energy transition, several stakeholders must come together, including the government, private investors, and corporate entities. Corporations have a special role to play in this transition -- not just as investors, but as direct innovators, adopters of new technologies and supporters of external innovation.

N. Agarwal is programme director, New Energy Nexus India & partner, Climate Collective; R. Nair is programme manager, New Energy Nexus India

The role of corporations: The role of CSR in achieving SDG-7 is significant. Two ways corporations can support the goals are by supporting external innovation, and in the deployment of projects.

For the latter, one global example of a CSR-led energy initiative is by Novozymes. It partnered with the UN Sustainable Energy for All's High Impact Opportunity (HIO) initiative to accelerate the deployment of sustainable bio-power and biofuels projects in 18 countries.

Indian corporates have been pioneering contributors in this regard as well. Some illustrative initiatives include Power Finance Corporation's deployment of solar-based LED lighting systems in 8,589 rural households in Arunachal Pradesh. Sasken Technologies used solar DC technology pioneered by IIT Madras to power the entire village (made up of 250 houses) in Belagavadi, Karnataka, thereby becoming the first DC solar-powered village in the state. Hindustan Aeronautics Limited (HAL) installed small-scale solar PV systems of 4kW with battery storage in over 60 government schools in Gubbi Taluk in Karnataka.

In 2020-21, of the total annual CSR funding in India of ₹12,180 crore, corporate entities allocated ₹139 crore for SDG-7 related projects. This represents just 1.14 per cent of total CSR funding. There is a definite opportunity for greater corporate involvement in SDG-7 in India.

Driving energy innovations: CSR is a perfect complement to public and private investment, especially in spurring early-stage innovation and ensuring equitable access. A key goal for CSR is to identify and fund high-impact projects. In our experience, the energy sector presents measurable outputs and clear outcomes that can create impact at scale.

Energy is no longer a luxury, but a fundamental necessity for people in the 21st century. The clean energy system we transition to must incorporate abundance, resilience, efficiency, innovation and equitable access.

We believe increased CSR funding can be productively channelled to support energy access projects, as well as innovations that help speed up the clean energy transition. One effective way is to support programmes that seek to identify and deploy such innovations.

As an example, the Electron Vibe programme (that we at New Energy Nexus India run) aims to facilitate engagement between electricity utilities and innovative start-ups. The goal is for utilities to co-create pilot projects using new technologies developed by the start-ups – ultimately, for deployment at scale. The planned outcome is to help utilities modernise and for them to incorporate innovation as a viable pathway in this transformation. Another unique initiative is the Women in Energy Entrepreneurship programme, which aims to increase support for women energy-sector entrepreneurs at early stages of their enterprise growth. This will enable a greater number of women entrepreneurs to succeed and ultimately move towards a more inclusive and gender-balanced energy start-up ecosystem in India.

SDG-7 provided an ambitious but necessary vision. While there has been progress, we need much more to happen over the remaining eight years. We are firm believers that India's corporate sector, a vanguard of responsible behaviour and impact-focussed funding, will be a key proponent of an equitable clean energy transition. ◆

Shining bright

Access to energy is a fundamental human right

AVAADA FOUNDATION

Let there be light!

Under Avaada's Rural Electrification Clean Energy Program, the company ensures sustainable development of the village community in meeting the needs of the present without compromising the fulfilment of future generations' requirements.

Avaada has set up 2x25 KW Solar PV Plants at two locations of Jayapur village in Varanasi district of Uttar Pradesh for the fulfilment of electricity needs of villagers. Also, the company has installed around 49 streetlights. These initiatives not only ensure security to the travellers and pedestrians at night, but also provide livelihood direct through local employment at solar plant and indirect through increased business hours due to power availability at nights.

This initiative not only contributed towards achievement of SDG-7 but also by virtue of its interaction with other SDGs, it contributed towards SDG-1, SDG-2, SDG-3, SDG-6, SDG-8, SDG-13. In addition, to create long-term value for its community, it also contributed towards SDG-4, SDG-5, SDG-9 too.

Avaada has adopted a multi-stakeholder approach, collaborating with communities, governmental and non-governmental organisations, academic institutions and others, to identify emerging issues, develop projects and effectively respond to challenges.

Avaada endeavours to follow best practices in identifying, implementing, sustaining and monitoring its interventions to maximize sustainability, scalability and transparency.

Need Base Assessment (NBA) of the village was conducted to identify any significant social issues, and project activities were designed, analysed, and quantified by keeping the social requirement into mind.

All the CSR initiatives are funded through Avaada Foundation or Chairman's Office directly – although, the company follows the mandate under the Companies Act 2013.

The installation of Solar PV plant for an entire village has been one of its kind in the country with coverage of so many SDGs through clubbed programmes, which was further replicated by many organisations.

Apart from this, to ensure the sustainability of the programme, a few other innovative solutions were adopted.

A ray of hope The company is one of the first in the country to implement a Solar PV Project initiative with battery storage system. Avaada has installed solar rooftop systems in rural government schools where larger section of underprivileged students come to study. Equipment in school such as LED lights, and fans are powered by standalone solar photovoltaic power system with battery back-up.

Digital and E-learning set-up has been done in rural government schools by Avaada for easy and qualitative learning. Laptop provision, computer set-up, smart TVs and along with teachers' training in these remote schools have been proving to be an innovative approach of learning.

Avaada has enabled 634 households (around 3,100 individuals) with electricity supply which has significantly improved the quality of life, working efforts, health and education, empowerment etc.

Earlier the enrolment used to be less than 200 in Jayapur Primary School. Now the enrolment has been increased with additional 50 students inclusive of girls and boys which is a significant rise. Trainers were invited to train the 25 teachers to facilitate quality education among children.

As many as 144 girls are certified through Nav Kiran Digital Computer Centre and 159 women are skilled through Nav Kiran Stitching Centre – Electrification has benefitted women and girls in Jayapur village. From a survey, it has been observed that with electricity in households, women and girls are managing to spend less time in household chores and have participated in income generating activities and education respectively, resulting on their empowerment at household as well as social level.

Sixty women are trained and certified in the Beautician course imparted by Nav Kiran Beautician Centre. Along with the beautician training, women are also given understanding of wellness.

Avaada also facilitated a job fair where 10 companies and 25 selectors were present. A total of 836 candidates were registered during the fair, and 514 candidates were selected in different sectors and fields like marketing, factory, security, ITI etc.

Avaada has engaged the community as part of its 'Urja Samiti,' under the programme initiative. Also, it promotes for the involvement of locals in O&M of the project. Community participation and involvement is the key for sustenance of the project.

Avaada endeavours to follow the best practices in identifying, implementing, sustaining and monitoring its interventions to maximize sustainability, scalability and transparency. An evaluation of the performance of an organisation helps in measuring, understanding and attainment of its CSR goals. Financial expense audit, monitoring and tracking help in plan further scale-up.

The company is going to be a 11 GW company by 2025 and it will certainly implement CSR activities in the local villages which comes in the vicinity of its projects. ◆

SEIF has supported the installation of solar water pumps to enhance the farmers' income

SCHNEIDER ELECTRIC INDIA FOUNDATION

Life is on

Schneider Electric believes that 'Access to Energy' is a fundamental human right and it wants everyone on the planet to have access to reliable, safe, efficient, and sustainable energy. With this vision, the company is running several programmes to empower people from financially disadvantaged backgrounds, both in the rural and urban milieu, for inclusive growth.

Energy is the underlying theme for all its initiatives' focus areas that the company calls the '6 Es', which are – Employment, Entrepreneurship, Electrification, Education, Environment and Emergency. Working on these areas the company's Foundations reaches 26 states in India, ensuring 'Life is On' for approximately 4.5 lakh beneficiaries.

Through various solar-based solutions of micro-grids, solar home systems and portable solar lanterns, Schneider has been able to reach more than 45,000 households in about 900 villages, improving the lives of more than 2 lakh beneficiaries. It has also extended its solar interventions for community-based services such as schools, primary health centres, streetlights, and community resource centres.

Solar irrigation pumps Schneider Electric India Foundation's 'Energy for Sustainable Livelihood' initiative was started in economically backward districts (90 per cent of which are aspirational districts) of India with an objective to double the income of small and marginal women farmers by providing assured irrigation for two/three crops through solar irrigation pumps with community managed sustainable operational model to bring forth food security, improve agricultural practices and reduce migration. SEIF has supported the installation of 250+ solar water pumps (SWPs) in project villages to enhance access to irrigation benefitting 5,000+ farmers.

Among the beneficiaries of the project, the case of Priska Bada is inspiring for a large number of women in Gumla Block of Jharkhand. Priska is from village Khora Toli, situated about 14 km from the district town of Gumla. Priska is aged 40 years and has two daughters aged 14 and 17 years. Priska's family owned about 2.5 acres of land that was cultivated once a year during the rainy season. Farming was mostly about growing paddy through conventional methods. Some parts of the land were spared for growing black gram and finger millets. The harvest was barely sufficient to meet the food requirement of the family for 6-months. Priska and her husband were compelled to migrate to Bihar and Uttar Pradesh to work in brick kilns for 4-6 months every year to support their family.

The change started when Priska along with 12 other women in her hamlet were supported by SEIF and implementation partner, PRADAN to form Self-Help-Groups under NRLM. For the first time Priska experienced the real power of collectives. They actively took part in village development plan under Yojna Banao Abhiyan of MGNREGA. The district administration considered their plan and provided financial support under MGNREGA and other schemes to help the women raise 10 acres of mango plantation. Priska took a loan from her SHG to release a part of their land that was mortgaged to a moneylender and planted mango. She received training on improved farming practices and was taken for an exposure visit to a production cluster to see women growing various crops on commercial lines.

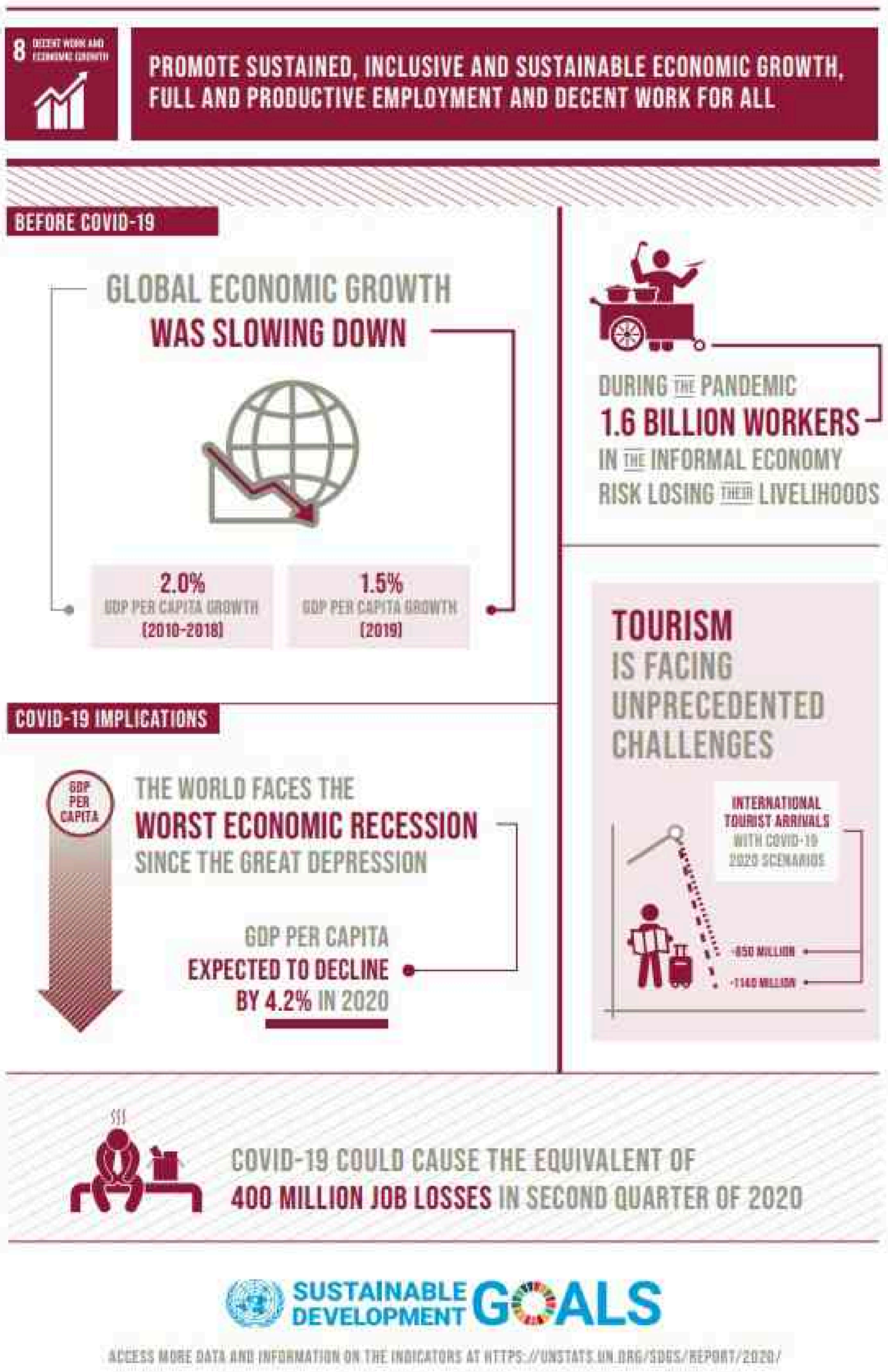
In 2019, the women from Khora Jamtoli came together to form Solar User Group to set up a lift irrigation system in their hamlet. Schneider Electric India Foundation (SEIF) with implementation partner, PRADAN supported technical implementation. Irrigation had helped them grow a number of cash crops in Kharif, Rabi, and summer. However, the major thrust to farming came when a Farmer Producers Organization (FPO) was formed in Gumla. The FPO, in the name of Gumla Mahila Kisan Swabalamban Trust (GMKST) was formed by 1,120 women in Gumla. Besides supplying high quality seedlings of vegetables, the FPO provided ploughing services with dolomite (to reduce soil acidity), fertilizers, micro-nutrients, prophylactic spraying of pesticides, weeding services etc. The FPO supported aggregation and marketing of vegetables at the farm gate. Priska produced 1.80 MT of tomato from 25 decimals of land during Kharif. She earned ₹32,000 as net profit. She had already earned ₹16,000 by selling mangoes earlier. Her cauliflower and green pea crops are also going steady and expectedly provide her good returns.

More than 5,000 of such farming families have been benefitted by Schneider Electric India Foundation's 'Energy for Sustainable Livelihood' initiative- while reducing the carbon footprint for agriculture.

◆

DECENT WORK & ECONOMIC GROWTH
SNAPSHOT

Goal: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



8 DECENT WORK AND ECONOMIC GROWTH

PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

BEFORE COVID-19

GLOBAL ECONOMIC GROWTH WAS SLOWING DOWN

2.0% GDP PER CAPITA GROWTH (2010-2018)

1.5% GDP PER CAPITA GROWTH (2019)

DURING THE PANDEMIC 1.6 BILLION WORKERS IN THE INFORMAL ECONOMY RISK LOSING THEIR LIVELIHOODS

COVID-19 IMPLICATIONS

THE WORLD FACES THE WORST ECONOMIC RECESSION SINCE THE GREAT DEPRESSION

GDP PER CAPITA EXPECTED TO DECLINE BY 4.2% IN 2020

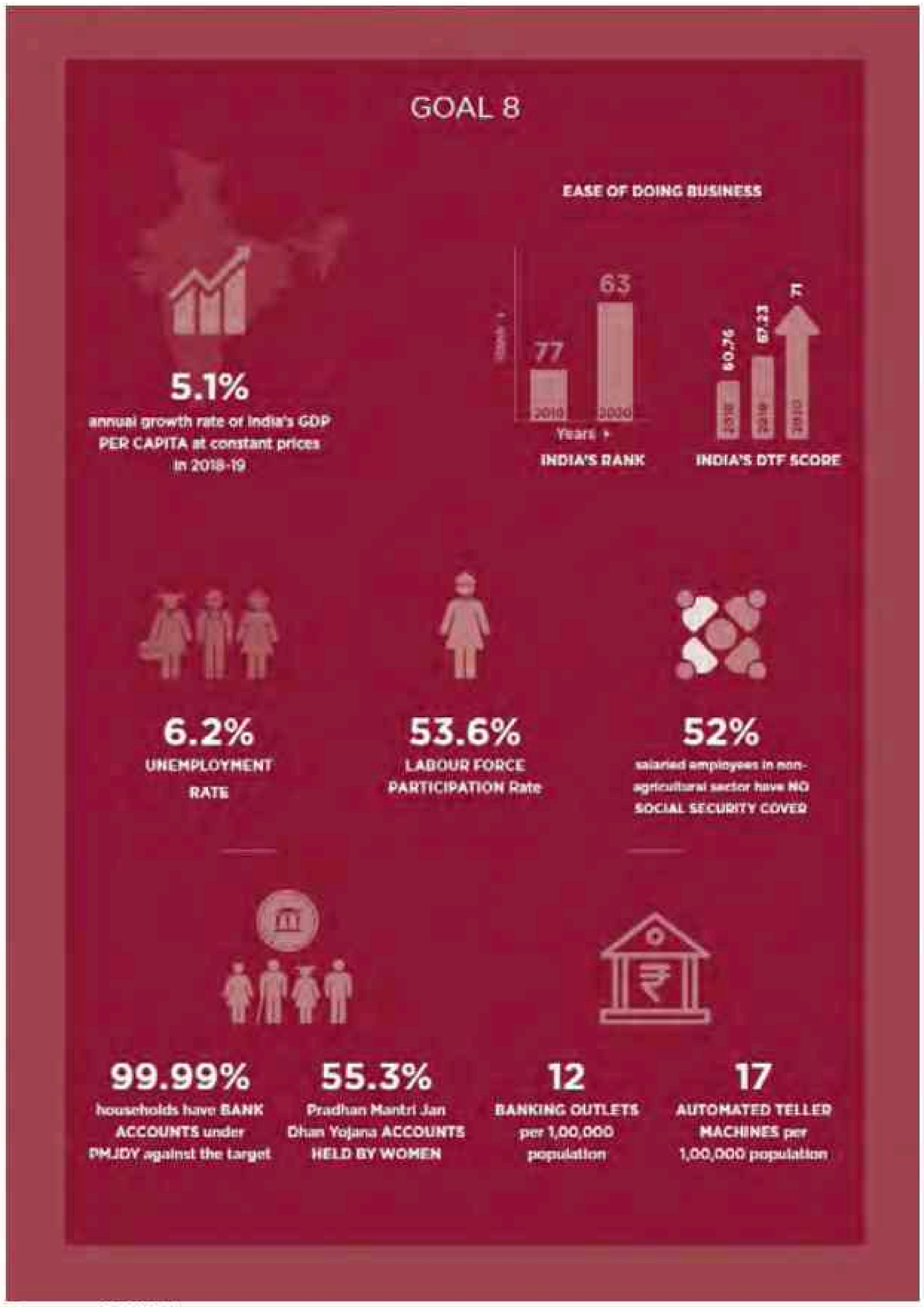
TOURISM IS FACING UNPRECEDENTED CHALLENGES

COVID-19 COULD CAUSE THE EQUIVALENT OF 400 MILLION JOB LOSSES IN SECOND QUARTER OF 2020

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 8

5.1% annual growth rate of India's GDP PER CAPITA at constant prices in 2018-19

EASE OF DOING BUSINESS

6.2% UNEMPLOYMENT RATE

53.6% LABOUR FORCE PARTICIPATION Rate

52% salaried employees in non-agricultural sector have NO SOCIAL SECURITY COVER

99.99% households have BANK ACCOUNTS under PMJDY against the target

55.3% Pradhan Mantri Jan Dhan Yojana ACCOUNTS HELD BY WOMEN

12 BANKING OUTLETS per 1,00,000 population

17 AUTOMATED TELLER MACHINES per 1,00,000 population

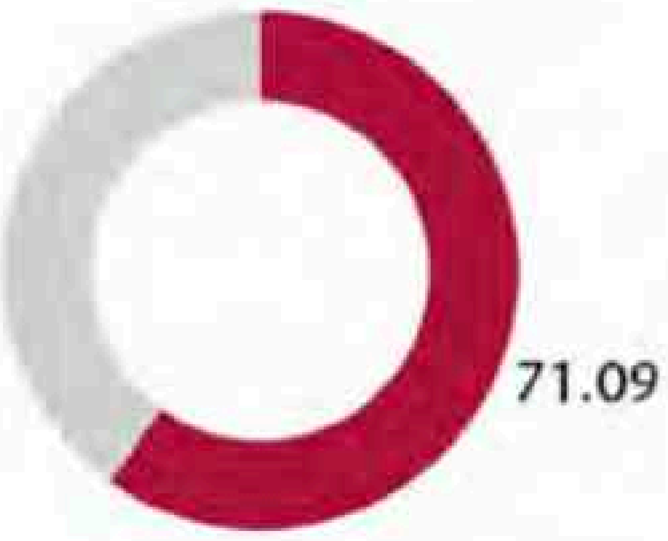
Source: NITI Aayog

8 DECENT WORK AND ECONOMIC GROWTH

Country Rank

69/165

Score



UN Dashboard Status

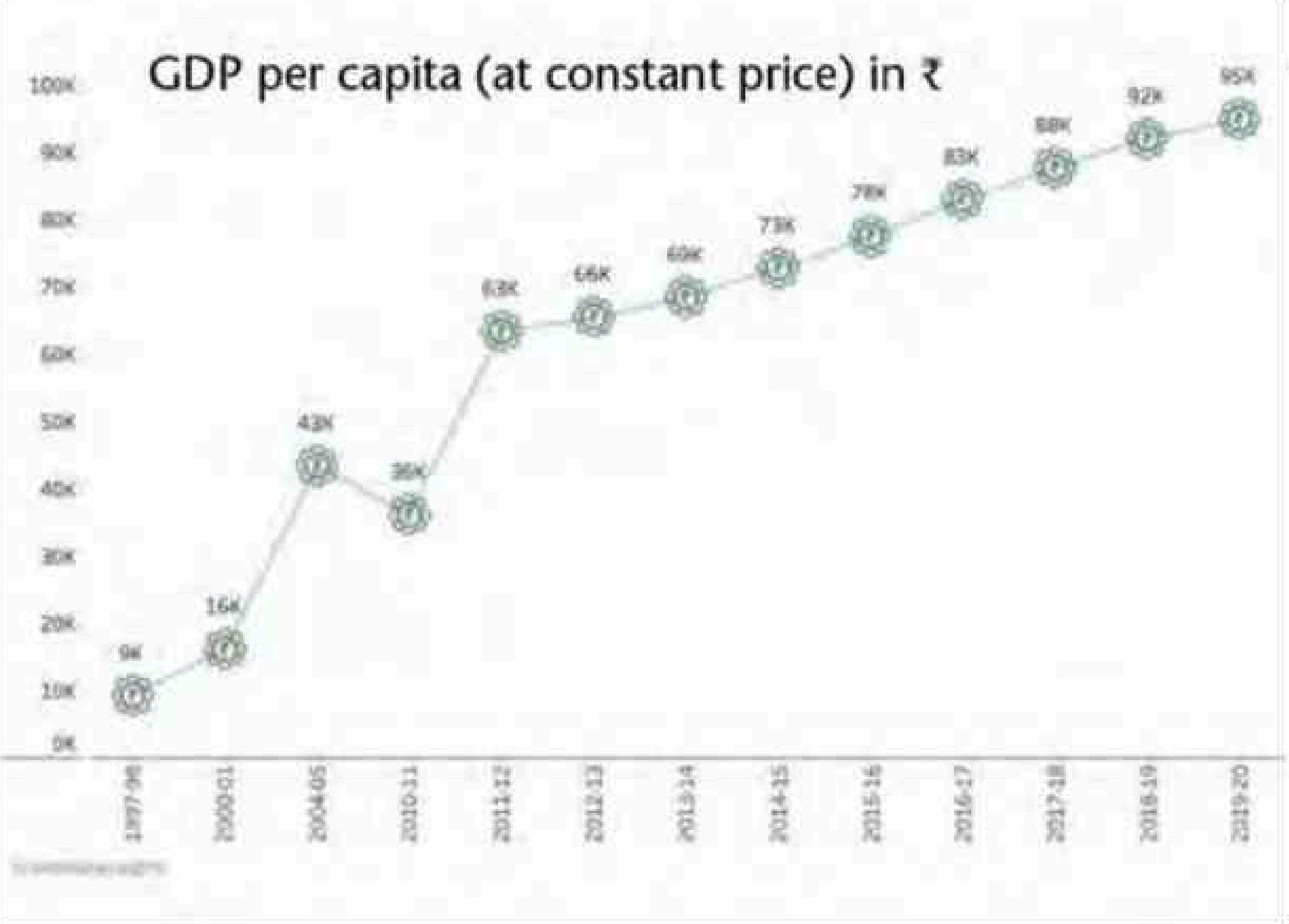
Significant challenges ●

Trend

Moderately improving ↗

In recent years, economic growth in India has been on the rise, and it is clearly reflected in the UN Sustainable Development Report for 2021. India's targets for SDG-8 include:

- Sustain per capita economic growth in accordance with national circumstances
- Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high value added and labour-intensive sectors
- Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of MSMEs, including through access to financial services
- Improve progressively, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production
- By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms
- Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment
- By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products
- Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all



Based on these goals and other internal initiatives, India ranked 69th in the world for SDG-8 with a score of 71.09. As per the UN Report, India is moderately improving in terms of work despite significant challenges that remain.

Contributing factors

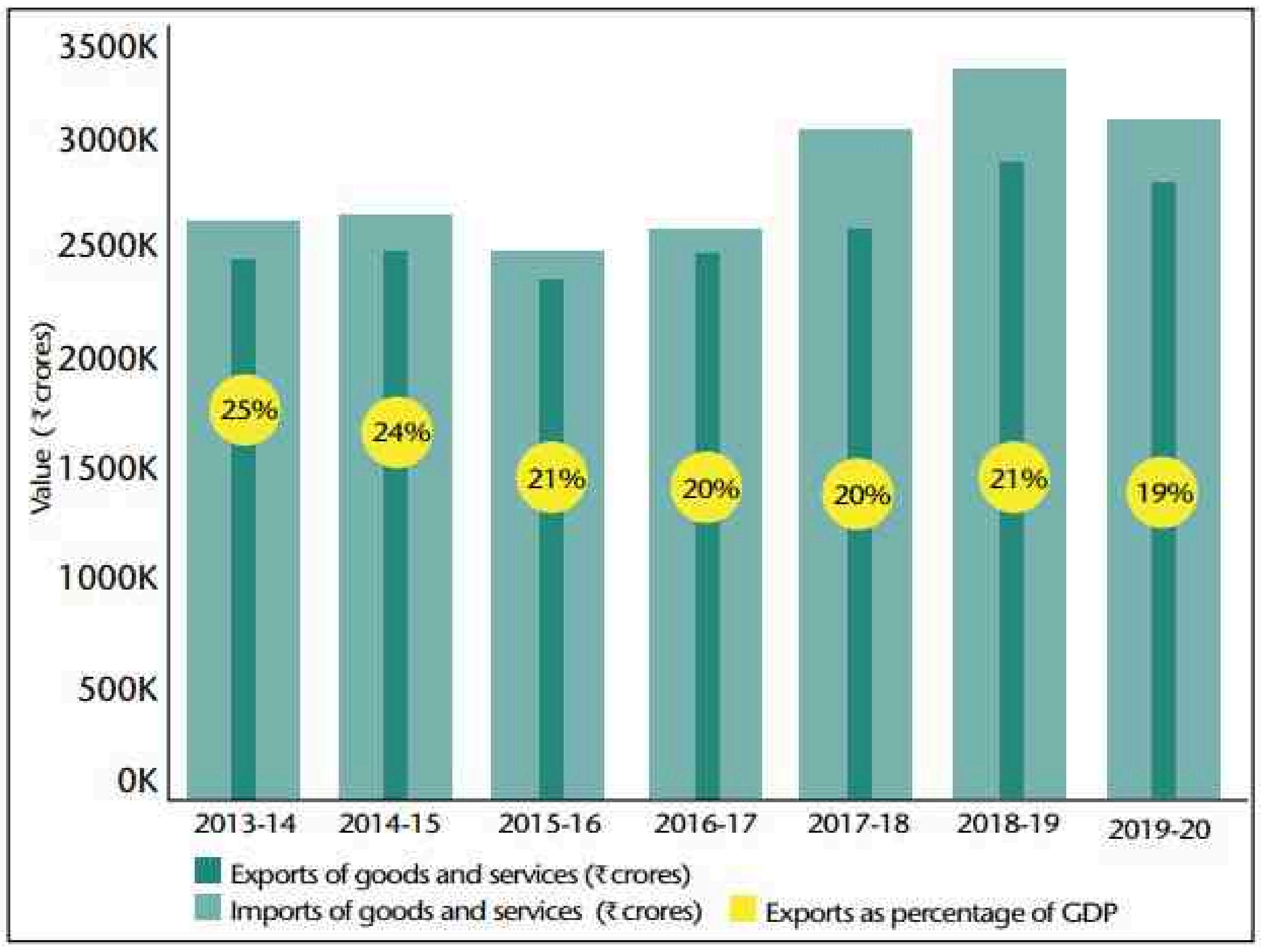
This improvement can be seen in the overall growth rate India has seen since 2011. To ensure healthy economic growth, India needs to maintain a minimum of 7 per cent annual GDP growth. (Growth Rate is the annual percentage growth rate of GDP at market prices based on constant local currency.) Since 2013 the country has been able to maintain a growth rate between 6-8 per cent till 2018. In 2019 however, the growth rate fell by 4 per cent, followed by a further decline to -7.96 per cent in 2020, which resulted from COVID19's impact on the economy. These trends in India are similar to global trends, which fell to -3.4 per cent in 2020.

Similarly, Per Capita GDP has also seen consistent growth, increasing 10-fold in the last 22 years. From ₹9,000 in 1998, India's per capita GDP at constant price reached ₹95,000 by 2020.

Various factors contribute to the economic growth of a country; exports and imports are one of them. Since 2013, the value of exports (goods and services) from India has increased; however, the percentage share of GDP has remained the same between 20 and 21 per cent. Additionally, the value gap between exports and imports has been widening. From 2015-16, imports were more than exports by ₹141,000 crores. However, in 2019-20 the gap more than doubled to ₹297,000 crores.

Alongside India's economic growth, the Gross Value Added has increased in recent years. The manufacturing sector has remained consistent at 22 per cent, with the services sector rising between 2013 and 2020 from 60 per cent to 63 per cent. However, agriculture, forestry, and fishing have seen a decline from 18 per cent to 15 per cent during the same period.

The percentage of people employed in the country has also grown in recent years. Persons employed takes into consideration those employed over the age of 15. In the last few years, the percentage of those working in industries has remained constant, with agriculture seeing a 2 per cent increase, and services seeing a 2 per cent decrease.

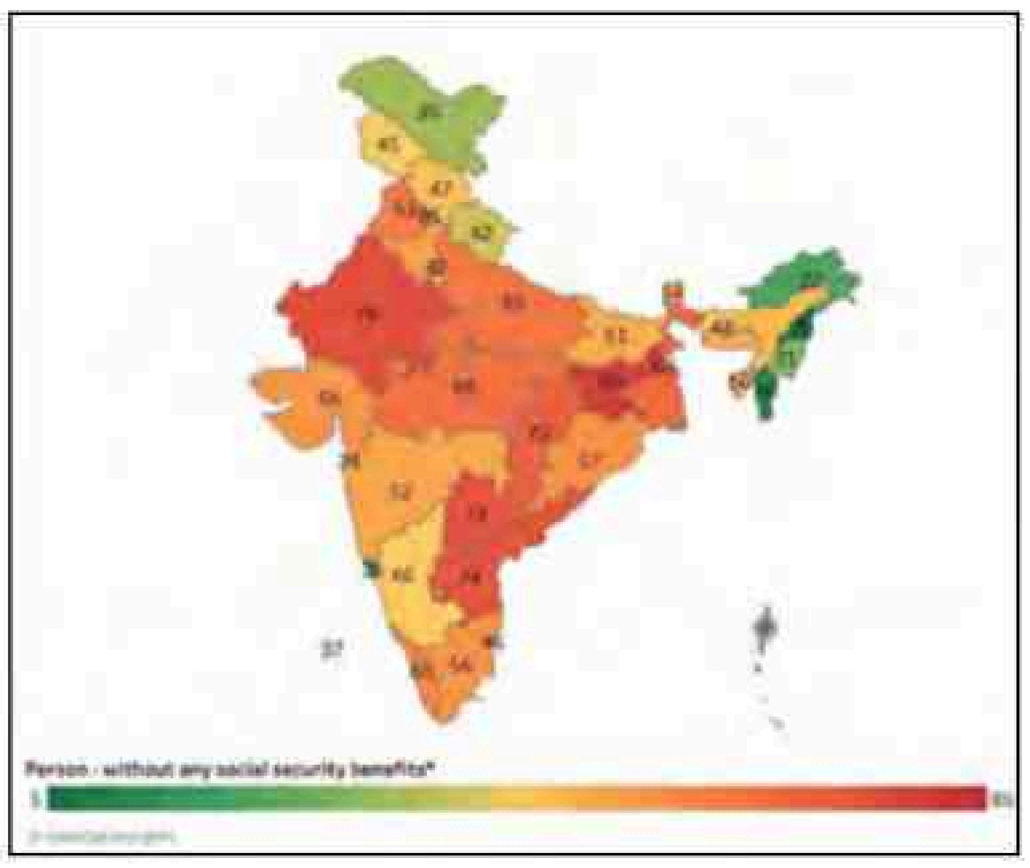


When looking at employment across India, data shows that half the population above 15 is employed. Employment Statistics from the Periodic Labour Force Survey (PLFS) indicate that for Labour Force Participation Rate (percentage of persons in the labour force), there has been an increase for both men and women, despite a wide gap between the two. The Worker Population Ratio (percentage of employed persons in the population) for males is ~70 per cent, while for women, it is ~22-28 per cent.

Alongside these promising signs, the unemployment rate in the country has also seen an improvement from 2017 to 2020, with average unemployment decreasing from ~6.0 per cent to ~4.75 per cent. As of 2020, the unemployment rates have dropped to 4.2 per cent of the female labour force and 5.1 per cent of the male labour force.

Aside from the labour force, over 50 per cent of the worker population in India is self-employed, while the remainder is distributed between casual labour and regular wage/ salary. 24 per cent of both men and women are engaged in casual labor, with 20 per cent of women and 24 per cent of men engaged in regular wage/ salaried jobs. The percentage share of self-employed women is higher than men, with 56 per cent of females engaged in self-employment and 52 per cent of men taking up a similar career path.

MSMEs employ a significant part of the Indian population, with 10.76 crore employed in micro-enterprises, despite micro enterprises having on average about two employees per enterprise. Small enterprises employ 31.95 lakh people, and medium enterprises employ 1.75 lakh people, each having on average 10 and 35 employees, respectively.



For those employed in India above 15 years of age, social security benefits could take the form of PF/Pension, gratuity, health care, and maternal benefits, or a combination of these. In 2019-2020 it was seen that smaller states like Nagaland and Mizoram tend to provide better social security benefits for the regular wage/ salaried employees than the larger states. In states like Jharkhand, Rajasthan, Andhra Pradesh, and Telangana, around 75 per cent of the regular wage/salaried employees haven't received any social security benefits.

No. of establishments (in lakh)	
Micro	630.52 (99.47%)
Small	3.31 (0.52%)
Medium	0.05 (0.1%)

Employees (in lakh)	
Micro	31.95 (2.88%)
Small	1.75 (0.162%)
Medium	1.75 (0.16%)

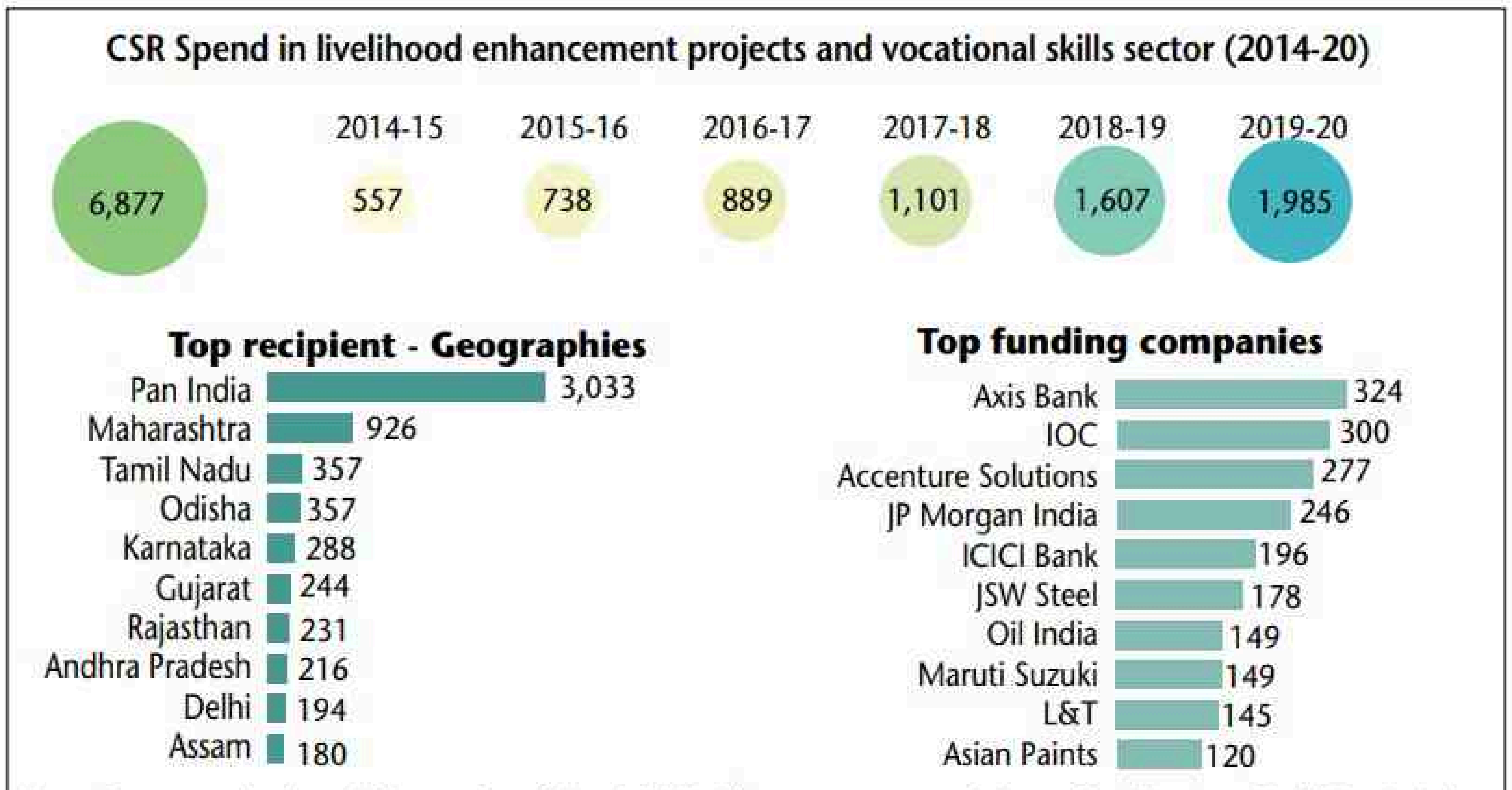
Average No. of employees per MSME	
Medium	35
Small	10
Micro	2

Other resources that support the employed population of India are Banks. In the last 15 years, the number of branches of Scheduled Commercial Banks has doubled. Maximum bank branches were added during the period 2011-2016, with 8,000-10,000 bank branches being added each year. As of 2021, 158,000 branches are now spread across India.

While there has been growth in the number of banks, the presence of banks across states is skewed. As of March 2021, India had 12 bank branches and 17 ATMs per lakh population. Goa tops the charts with 45 bank branches and 63 ATMs per lakh population. The central belt of Indian, however, has a low bank and ATM density, with Bihar being the lowest with only 6 branches and 7 ATMs per lakh of population. On average, all southern states and select northern states like Uttarakhand and Jammu and Kashmir had about 20+ ATMs per lakh of population.

With growing opportunities among MSMEs, sectors such as services, and the increase of female population in the workforce, India is slowly but consistently reducing its unemployment rate. While import-export rates have remained relatively unchanged, the nation's economic growth shows potential to continue to grow.

CORPORATE CONTRIBUTION



Notes: Data as updated on MCA portal as of March 2021. All amounts are cumulative and in (₹) crore ©IndiaDataInsights

CSR spend on livelihood enhancement projects and vocational skills training helps reach SDG-8 targets. In the last 6 years, corporates have spent a total of ₹6,877 crores on these sectors. About 29 per cent of this amount was spent in the fiscal year 2019-20. Axis Bank, Indian Oil Corporation, Accenture Solutions and JP Morgan Services, and ICICI Bank are top 5 companies who have spent nearly ₹200 crores each in this area. Maharashtra received the maximum investments for SDG-8 – ₹926 crores, which was more than the cumulative amount received by the next three states – Tamil Nadu, Odisha, and Karnataka.

With growing opportunities among MSMEs, sectors such as services, and the increase of female population in the workforce, India is slowly but consistently reducing its unemployment rate. While import-export rates have remained relatively unchanged, the nation's economic growth shows potential to continue to grow.

Agriculture and its potential

The future of jobs in agriculture sector depends on how we are able to convert the produce into food and get the food on the plate

SIRAJ CHAUDHRY

The pandemic has come as an eye-opener for the entire world and has changed the lives of many forever. Socioeconomic turmoil and hardships caused by the pandemic are hard to define. From a global health crisis to deep economic turmoil, the impact of the pandemic on jobs and incomes has been unprecedented.

In India, the economic consequences of the pandemic have been staggering for different sections of society. Many of those with limited means and protection, such as workers in informal employment, have severely suffered the consequences of this crisis. Nationwide lockdown and sealing of inter-state and international borders to control the pandemic triggered reverse migration of informal migrant workers back to the countryside. According to a report by the Centre for Monitoring Indian Economy (CMIE), employment shrunk by a massive 30 per cent in April 2020. Even when Covid-19 cases declined and mobility restrictions eased in June 2021, the recovery in labour markets remains uncovered. The recovery in June notwithstanding, job losses compared to January 2021 was of the order of 17 million, states the report.

The impact of the pandemic on society is a long-lasting one and something which is not easy to measure. The new challenges arising from the pandemic have affected the progress on SDGs. The overarching aim "leave no one behind" announced during the adoption of 17 SDGs by United Nations Member States in September 2015 seems to be under threat by the current growing inequalities. It will require renewed enthusiasm and approach to enact in principle the 17 SDGs.

SDG-8 and Indian agriculture Agriculture and allied activities account for about 20 per cent of India's GDP as per the Economic Survey 2020-2021. Around 41.49 per cent of Indian population found employment in agricultural activities as per the World Bank collection of development indicators. It is for the first time in the last 17 years that the share of agriculture in GDP has reached almost 20 per cent, making it a redeeming feature in GDP performance during 2020-21. Given its huge contribution to the Indian economy and the number of people associated with it, agriculture and its allied sectors are critical for achieving the SDG-8 of Decent Work & Economic Growth.

Primary food processing as an avenue for growth Every farm produce requires some form of basic processing such as drying, shelling, milling, grinding, etc. This form of processing is known as primary processing. Rice mills, flour mills, and pulse mills, fall under this category.

Primary Food Processing (PFP) is the first value addition to a crop and a substantial share of food grains undergo primary level processing such as hulling, milling, grinding, etc. before getting consumed. In India, where the consumption of processed food is still at a nascent stage, primary food is the most common form of food processing, and a large chunk of food grains are consumed just after primary processing.

It is a significant first step in the food value chain and therefore every effort should be made for the promotion of the PFP industry. It is one industry that can generate employment directly at the farm gate and can help in raising farmers' income. Through primary food processing, farmers can realise a higher value for their produce as the value of a finished product is always higher than a raw product.

In a fast-developing economy, the tendency of labourers to migrate to urban centres for better income is commonly seen. But this rampant migration has its peril. It not only chokes the limited infrastructure of urban centres through a rise in slums, but also leads to less labour participation in agriculture, which can threaten food security in some territories.

One major lesson of the pandemic is the urgency for revival and reconstruction of rural livelihoods. PFP being a labour-intensive industry has the potential to provide localised employment opportunities and curb migration. Strong financial, technical and business support should be provided to farmers for establishing PFP enterprises. Companies like Cargill have established food processing plants in Karnataka for converting corn to food starches and derivatives and have made additional investments in silos for storing the corn. This kind of facility provides increased market access to local farmers with more opportunities to sell their products and align with the market.

Agro-forestry is another area with immense potential but is largely untapped. India has significant imports of wood and wood-based products such as pulp, paper, packaging, etc. The applicable tariffs on these items are quite low, which often makes import of wood more attractive than growing trees in India. Due to the lop-sided tariff policy on woods and wood products, livelihood creation in

The author is Managing Director & CEO, National Commodities Management Services Limited

the country in the agro-forestry sector is not satisfactory. To curb this, there is a need for crafting favourable policies which could give a fillip to employment generating wood-based industry in India.

Skill development of agri workers As per the Food and Agriculture Organization's (FAO) estimates, nearly 40 per cent of food produced in India gets wasted before it reaches the consumer. In monetary terms, this amounts to a loss of ₹1,00,000 crore. These losses can be attributed to fragmented food systems and supply chains gaps. Further, the multiple layers of intermediaries create severe vulnerabilities in our food supply chain such as lower price realisation for farmers.

Availability of scientific storage facilities is a prerequisite for reducing post-harvest losses during the storage of grain. Reduction in post-harvest losses can help in increasing food availability and eliminating hunger. To address this challenge, warehousing companies such as National Commodities Management Limited (NCML) are setting up new storage and silos facilities and are seeking skilled workers for managing operations of these warehouses and silos which are coming up in rural areas.

In March 2021, NCML signed an MoU with the Agriculture Skill Council of India (ASCI), for upgrading the skills of workers in the agriculture sector. Through this partnership, a continuous learning framework leading to training and development of resources in the agriculture industry was created and some 920 people were trained in 8-9 different skills related to warehouse management across 19 locations.

Adoption of technology by farmers Most farmers in India now own mobile phones, but are often unable to use them for finding information on crop prices or best practices for their crops. Slow adoption of agricultural technologies and innovative practices has been a bane of Indian agriculture. This could all end soon with the help of digital transformation which India is undergoing. Through Bharatnet the government is already working on providing broadband connectivity to the 2,50,000 Gram Panchayats across the country.

Last mile digital connectivity can be leveraged to communicate innovations in agricultural practices to farmers in a user-friendly format. A huge number of start-ups have sprung up in the area of food crop transactions bringing together input suppliers, farmers, and buyers. These digital platforms link farmers with the market resulting in better prices for goods sold. With proper guidance and training, the farmers could be integrated with a digital marketplace. This would require coming together of the government and the corporate sector to provide required touch points and quality information to farmers to catapult the digital marketplace.

Rural penetration of technology can be capitalised further to realise better prices for the handicraft and artwork of rural artisans. India's cultural, linguistic and handicraft diversity is well-known, and its art and craft products are recognised globally. With the advent of e-commerce platforms, rural artisans can sell their products online at better prices. This linkage between rural artisans and e-commerce platforms needs to be deepened further for increasing the income of rural artisans and putting more money into the rural economy.

Agritech and e-commerce have the potential to transform the rural Indian economy. Government support and improved digital infrastructure presents an exciting opportunity for innovation in agriculture value chain. It also presents massive employment opportunities for the rural population for managing the digital ecosystem of agriculture. This would require upskilling of the rural workforce at a massive scale for making them employable in the evolving digital ecosystem. Increased digital literacy within small and marginal farmers will also help in the adoption of agri-tech at a rapid pace, thereby transforming agriculture in the country.

For agriculture to find value in current times, it needs to be linked to the food industry. The future of jobs in agriculture sector depends on how we are able to convert the produce into food and get the food on the plate. In other words, jobs could be created anywhere in the value chain that connects the producers with final consumers. Hence, we need to focus on skilling the people so that they can be employed at any part of this value chain. If a large population resides in the rural parts of India generating employment in rural areas by leveraging technology, infrastructure and skill building, it would bring immense prosperity to the nation. ◆

Empowering the rural economy

Working closely with NGOs to address socio-economic and ecological challenges is the key to success

DHRUVI SHAH

Sustainable Development Goals (SDGs) are a valiant measure to push the frontiers of development. They represent an elaborate agenda that necessitates achieving progress across social, economic, and environmental pillars. Despite advancements in human development indices, only limited success has been achieved globally on most of the eight pillars of SDGs. Challenges such as improving access to financial services, increasing employment opportunities, especially for the young workforce, reducing informal employment, labour market inequalities, and gender discrimination persist globally.

India, with world's 17 per cent population, is a key stakeholder towards achieving global SDGs. The country faces multiple challenges in several sectors, be it health, nutrition, education, sanitation, and infrastructure. These challenges also make India innovate and develop solutions to address them and offer a useful lens for solving similar problems in other countries. Governments, civil society organisations, private sector, development organisations, academia and citizens must actively collaborate to accelerate efforts to achieve these goals. Businesses play a central role in advancing SDG-8 as they can invest in innovation, labour and capital to achieve strong, sustainable and equitable economic growth that provide overall well-being.

As organisations move from 'profit' to 'purpose', investors, regulators, and civil society are rapidly adopting the principles of E, S, and G. Axis Bank is cognisant of its responsibility to actively participate and contribute to driving forward India's equitable and sustainable economic transition. Pertinent business and non-business activities of the bank are aligned to the pertinent SDGs, as well as, to India's commitments under the Paris Agreement.

Taking a step in this direction, Axis Bank Foundation (ABF) has been closely working with NGOs across the country to address socio-economic and ecological challenges faced at the grassroots level. ABF's flagship Rural Livelihoods Support Programme works in villages and states to boost rural economies, enhance livelihood opportunities, and promote skill development among rural youth.

In the last decade, through research and consultations with experts, industry leaders and development sector partners, ABF has been able to map the challenges associated with rural livelihoods and provide an understanding of the different pathways available to enhance economic empowerment of societies, and decent work for all as prescribed under SDG-8.

The author is CEO, Axis Bank Foundation

Diversifying rural livelihoods: As per the Economic Survey 2020-21, agriculture contributed 20 per cent to India's GDP. Role of agriculture and agro-allied sectors remains crucial as India aims to be a $5 trillion economy by 2025 along with its continued focus on *Atmanirbhar Bharat*. Over the years, rural communities in India have been affected by a multitude of life and livelihood threatening hurdles, such as lack of employment opportunities for unskilled labour, and the inability to access formal markets, affordable credit and extension services.

Rural livelihood initiatives need to look at farm-allied or non-farm capacity building that ensures risk minimisation by augmenting farm income or stepping-in in times of crop failure. Awareness and education on improved farming methods to boost crop yield, better seed management, inter- and multi-cropping practices, use of bio-pesticides and organic fertilisers needs to be strengthened. Alternative livelihood avenues such as horticulture, livestock rearing, fisheries; although seasonal, needs to be promoted by educating community members while simultaneously encouraging them to leverage existing government schemes. The risk of high dependency on a single source of income will be significantly reduced by establishing a basket of income-generating activities for rural households. This holistic approach will also strengthen community-based and community-owned institutions while establishing a sense of ownership and ensuring the sustainability of outcomes.

Going big on small businesses: Micro-enterprises and local entrepreneurs are crucial players for economic development as they create local livelihood opportunities as well as indirect employment via channels for sourcing local raw materials. Creating an ecosystem for micro-enterprise and local entrepreneurship development requires building capacities, improving access to technical and business management knowledge, bridging gaps of inadequate financial resources through credit linkages and consistent handholding to ensure stability, sustainability, and long-term success. Additionally, strengthening interventions such as these, establish an alternate and additional source of local income while empowering the community at large and increasing community participation, especially of women.

Driving digital skill development: Skilling opens avenues for rural youth, who have limited

access to education or local employment options, with an opportunity to earn a decent living. However, training programmes for youth in peri-urban and rural areas need to keep pace with the new demands of labour markets that are continually challenged by technological disruption, demographic change, and evolving nature of work.

The World Economic Forum recently stated that 9 out of 10 jobs will need some form of digital literacy while 65 million digital jobs will be generated over the next 10 years. Rural youth in India need to be equipped to capitalise on this wave of digitalization. To bridge the digital divide, the entire ecosystem needs to work together and create an infrastructure that disseminates knowledge in a customised manner in respective local languages. The government and civil society organisations need to act rapidly and collaborate with private sector to reform programmes aimed at skilling India's workforce to be able to effect systemic change. Co-operation between the public and private sector is necessary to truly drive a skills revolution.

Championing farmer producer organisations: Farmer Producer Organisations (FPOs) have the potential to act as a catalyst of change and boost economic growth. At a macro level, FPOs help strengthen value chains, increase access to markets and generate more employment opportunities. It is important to make FPOs more cohesive entities so they can influence the future of farming.

There are currently 10,000 FPOs in India but the country requires over 1 lakh FPOs to significantly improve farmer incomes. There is a need to create ecosystems and infrastructure that supports the creation and incubation of FPOs, helps them flourish so that they provide the right inputs to farmers, develop the farming ecosystem in the area, leverage technology to scale and strengthen their management systems and capital structure. Market and financial accessibility, credit affordability, efficient commodity pricing mechanism, etc. need to be managed by timely policy-level initiatives and private sector capital flow in a calibrated manner.

Creating inclusive systems: One of the key challenges in India has been the declining participation of female workers in the labour force. Women play an important role in boosting rural economy besides their responsibility towards the well-being of family members. Promoting and ensuring gender equality and equity, besides empowering rural women through decent work and productive employment, not only contributes to inclusive and sustainable economic growth but also enhances the effectiveness of poverty reduction and food security initiatives.

Information and access to various social schemes: India has several social welfare schemes such as MGNREGA, NRLM and food-based programmes like Public Distribution System (PDS), Anganwadis, mid-day meals, National Skill Development Mission, Deendayal Upadhyaya Antyodaya Yojana, and Atal Innovation Mission that are aimed at supporting people at large. CSR and private sector initiatives should be designed to complement these programmes rather than reinventing the wheel.

There is a need to ensure that a majority of households at the Bottom of the Pyramid – small and marginal farmers, and landless households – receive a fair share from growth in the economy. With the change in narrative and forward-looking approach across these six areas, there is a lot of potential to spur economic growth, create income-enhancing opportunities, and promote decent work across rural India if we are to achieve the UNSDGs.

◆

Building bridges

Creating a more humane and inclusive society

HINDUSTAN ZINC

Improving livelihoods

Providing sustainable livelihood opportunities through focused skill development initiatives for various target groups is a key component of Hindustan Zinc's CSR intervention. It is now reaching more than 31,000 farmers and young people by providing them measures for sustainable livelihood through generating market-linked skills.

Hindustan Zinc's flagship programme Samadhan focuses on increasing the income of the farming community through sustainable farm practices. Samadhan reached out to 13,838 farmers through agricultural interventions and 15,103 families through animal husbandry initiatives. Under agriculture, the key highlights and achievements for the year were a 12 per cent increase in maize production with average production of 6.3 quintals per bigha. A hi-tech vegetable cultivation programme for the production of exotic crops such as strawberry, broccoli and lettuce was introduced. In the cropping cycle, farmers earned an increased income of ₹90,000 through cultivation of hi-tech vegetables. Also, eight farmers were recognised both at district and state levels for their exemplary farm practices under the ATMA Awards.

Livestock intervention is yet another initiative the company undertakes to improve the farmers' lot. As many as 6,900 artificial inseminations (AI) were undertaken through conventional semen, in which 1,461 female calves were born in FY21. As many as 534 AIs were performed using sorted semen: cutting edge technology which assures the farmer 93 per cent certainty of a female calf. Nearly 125 female calves were born from AIs using sorted semen this year.

During Covid-19, Samadhan farmers became supporters by providing basic resources for their community. With a huge number of daily wage earners losing their livelihood and food supply getting disrupted in some areas, 400 Samadhan farmers pooled in 6,378 kg of grains in the 'grain banks'– an initiative promoted by the company – from their fields, for serving the surrounding communities. In addition to this, online platforms were constituted for sharing Covid-19 related awareness and precautions across farmer groups.

Samadhan focuses on increasing the income of the farming community

Skill-based trainings This year, the company started skill interventions in two additional locations, totalling to four skill centres. The objective of the programme is to provide market-linked skill-based trainings on various trades – general duty assistant, unarmed security guard, micro finance executive, domestic electrician, data entry operator, retail sales executive, BPO executive, etc. During the year, through three different projects, 929 students were enrolled for training in 17 different trades. Of these, 677 have been placed and 252 are still undergoing training. 34 per cent of the total candidates who were trained as unarmed security guards were females. A special batch was conducted on BPO training at Zawar, Udaipur district, during FY21.

Devendra Virval, from Nathdwara, Rajasthan had witnessed misery and hardship. He wanted to continue his education after completing his 12th standard but his family could not afford. Devendra joined HZ-SEDI (Skill & Entrepreneurship Development Institute) centre in Railmagra, Dariba, supported by Hindustan Zinc and Ambuja Cement Foundation. He enrolled in the 'Microfinance Executive' job course. The free-of-cost training under HZ-SEDI helped him to acquire technical and operational knowledge of the industry. He now works as a Group loan Officer in IDFC First Bank at Fatehnagar and earns ₹23,000 per month.

Krishna Prajapat hails from Kotdi, Railmagra. She learned from counsellors that HZ-SEDI institute provides free training with certifications. After joining, Krishna was taken aback when she realised she was in a class full of men. But her determination and talent won her through and after the completion of her course, she was placed at Secure Meter at an annual package of ₹1,14,000. She now works at the Raffles Hotel at Udaipur and earns ₹1,32,000 a year.

Living alone with his mother in a village, Hariom Vyas was unable to continue his studies after completing school. In 2019, he heard about HZ-SEDI. Seeing it as an opportunity to supplement the family income, he joined the Microfinance Executive Trade class and actively participated in every session. With the successful completion of his training, he was interviewed by HZ-SEDI at Axis Bank and got selected as a senior executive at an annual package of ₹1,49,148. He now works at Axis Bank with great dedication and apart from his salary he is being incentivised for his hard work which results in average monthly earnings of ₹15,000. ◆

FORBES MARSHALL

Creating shared value

Over the last few years, Forbes Marshall has implemented another step towards serving its customers and society jointly, using the Shared Value Model. This approach attempts to meet a social need, while addressing a company's business needs.

The Shared Value initiative has been in place for the past three years. At Forbes Marshall, this approach was conceptualised with the intention of helping young engineers who are socially or economically backward; especially those from rural areas, enhance their skills to enable them to find jobs, and have a sustainable career. The second consideration was that this would also have a positive impact on the company's business.

Forbes Marshall looked at the opportunities and challenges in its own business. It then zeroed down on one activity – the annual maintenance contracts (AMCs) that it offers its customers. Experience showed that the company could generate increased business through this activity; however, a shortage of resources was a hindrance in providing timely execution of the contracts. It was also found that as customer sites were at a distance and in remote locations, travel costs were high.

The first batch started in November 2018, in collaboration with an NGO in Baroda, which helped with recruit local candidates. The programme, designed as a three-month project, has three key elements: The first part was getting engineers up to speed in communication skills, the basics of instrumentation and electronics and computers. This knowledge is a must-have for engineers when they join any organisation. This was conducted at the NGO site, Baroda.

The second part was training engineers (a combination of hands-on and classroom training) on the company's product range. Looking at the current requirement of maintaining pollution control-related supplies, engineers were trained on different ranges of products. This was conducted at the training centre in Pune.

The third part was to expose and train engineers on the field. For this, engineers were deputed to various branch offices across India, raising their awareness of the company's installed base of customers. Its service team members in the branches mentored and guided them very closely.

Selection of candidates After the success of the first batch which had 13 candidates (two of whom were women), in July 2019, the second batch was launched. On the basis of selection of candidates and business requirements, Forbes worked with the social arm of Ambuja Cement viz Ambuja Cement Foundation's Skill and Entrepreneurship Development Institute (SEDI) at Chandrapur. The same approach was followed; however the deeper product range training differed, given the specific needs of customers in the Nagpur/Jamshedpur and Kolkata regions.

The third batch at Jamshedpur, with an NGO partner, Shramajivi Mahila Samity was recently concluded. And the fourth, ongoing batch is in the Pune region, with students hailing from rural Maharashtra. After the successful completion of training, candidates are issued a formal certificate, which is signed by Forbes Marshall and the partner NGO.

There are several benefits from the Shared Value Project to the organisation. For example, in all the batches, an excess of 90 per cent of candidates are recruited, by either service providers from Forbes Marshall or by others. A few are setting up their own businesses. Also, in the first year, the company's own business increased by 30 per cent; with an added increase of 115 per cent in 2020-21. The candidates have supported Forbes Marshall's own service engineers, by swiftly visiting sites to attend to commissioning or product failure jobs, thus delighting the customer.

Helping young engineers enhance their skills

Some positive fallout has been a doubling of orders of a related business vertical, for the Gujarat region. Learning from this, the company has appointed additional engineers for this business in other geographies too, thus providing added employment opportunities to young people.

Be it the Pune, Gujarat or Chandrapur batch, all the candidates are from rural areas and from socially/economically deprived sections of society. This had its own challenge in training and grooming them, once put on the job.

Another positive fallout has been the beneficial impact on the company's own engineers and managers. They have felt a huge sense of pride and accomplishment, in seeing the transformation that has been wrought in these youths and have continued to take a personal interest in guiding and mentoring them.

Forbes Marshall is now looking at expanding the programme to other geographies in India. ◆

TAJ HOTELS

A skilling model to STRIVE for

IHCL has invested in creating high-quality talent to support hospitality training

Indian Hotels Company Limited (IHCL) endeavours to drive policies and programmes that build the bridges needed for a more humane and inclusive society. It has been playing a vital role in contributing to the betterment of the society, as well as the destinations in which it operates.

IHCL, under its initiative to enhance employability of the less privileged youth, has partnered with the Tata STRIVE to train over 20,000 youngsters in the last decade through its 'hospitality skill training programmes'. While 80 per cent or more have been employed in the industry, a few have also had the opportunity to work with IHCL. Tata STRIVE adds value to this exercise through digitisation and youth development modules. Interestingly, this training initiative has been able to reach out and enrol 30 per cent female candidates, making it even more encouraging to strengthen the skilling initiative.

The courses offered are in food & beverage service, house-keeping operations and multi-cuisine cooking. As the students enrolled for such courses are mostly from low socio-economic strata, the courses designed are short-term – four months – inclusive of a month of On the Job Training (OJT) in the industry, which gives them the connect between what is taught in classroom theory and what is best learnt during OJT, thereby boosting their confidence. The student's monthly remuneration is 8,000-14,000, depending on his/her competency, job location, entity, etc. IHCL has helped build capabilities of many, not for profit, but to impart skills and training for less privileged youth in hospitality and tourism industry.

IHCL comes in as a knowledge partner in the skilling value chain. Recently, it partnered with ACF (Ambuja Cement Foundation) in skilling the youth in hospitality traits. ACF, a grassroots implementing organisation, has, over the past few decades, developed specialist expertise in 'last mile reach' and 'community mobilisation'. Its centres are located at Chirawa, Nagaur, Debari in Rajasthan and Bhatapara in Chhattisgarh, where food & beverage service courses are also offered.

The value chain This training intervention stems out of using IHCL's strengths, given the hospitality, its geographical presence, like-minded partners to work with and the socio-economic background in the existing locations in their hotels' vicinity. In the skilling space, as part of programme designing, IHCL's intervention is woven through the value chain, starting from mobilisation to placements. The company has identified disadvantaged, vulnerable and marginalised stakeholders, which include rural, less-privileged, school dropout, differently-abled, marginalised youth and women; indigenous artisans, cancer-affected families, disaster victims and other such groups – from target geographies identified from time to time. Based on this identification, IHCL has mapped its target beneficiary groups for its skilling programmes.

The Tata group's employee skill-based volunteering platform serves as a stage to integrate IHCL's skilling initiative. This platform not only ensures core domain skills required during training, but expert sessions from IHCL's key departments, such as operations, finance, legal & ethical, microbiology, CSR & sustainability, etc, play crucial role in adding value to the programme.

IHCL has invested in creating high-quality talent to support hospitality training. The training module focuses on screening students for interest levels in people-centric jobs and on building their attitudinal readiness, confidence and life skills, apart from building their domain knowledge. Over the past five years, the company has spent about 40 per cent of its CSR funds towards skilling initiatives. In today's age of lucrative business models, every rupee shelling out is anticipated to have 'return on investment'. Conversely, the assessment of investments in not-for-profit organisations is more challenging, since a substantial objective of these organisations is towards social improvement.

The skilling model by IHCL is tried, tested and ready for scale. This would build capacities of institutions that serve the youth from low socio-economic backgrounds and remote hinterlands and run industry-relevant vocational training programmes that benefit such youth, who drop out from the traditional educational system. ◆

LOWE'S INDIA

The promise of possibility

Lowe's serves about 20 million customers a week in the US and Canada. Lowe's India, headquartered in Bengaluru, has 3,500+ associates working across technology, analytics, business operations, finance & accounting, product management and shared services, to support the US and Canada retail operations.

After 100 years of working in, living in and improving communities across America, Lowe's understands firsthand the promise of possibility. And the same transcends into its vision and all its CSR programmes in India as well.

Lowe's India's CSR endeavours to empower and enable underserved communities through sustainable community development programmes, while supporting the local state governments in providing disaster relief and rehabilitation. Lowe's CSR programme serves the underserved communities, comprising children, youth, women, LGBTQ and people with disabilities (PWDs) in fields aligned with the business.

When the government implemented lockdown measures to help contain the spread of Covid-19, the economic side-effects were felt severely by poor communities – especially, the marginalised women. Finding opportunity in crisis, Lowe's, in partnership with Sambhav Foundation, created the Sanitization Hygiene Entrepreneur (SHE) Programme – which finds meaningful employment for the most vulnerable, especially women, in jobs that improve their environments. The programme includes training of women as SHE inspectors to undertake fumigation & disinfection of Covid-infected areas/homes/objects, giving them an opportunity to earn a sustainable daily wage.

Anasuya, a resident of Bengaluru, expressed her gratitude for the programme, saying that it allowed her to fend for her families and settle the bills, especially at the times when even her husband had lost his job and they were finding it difficult to make the two ends meet. "Labour Net/Sambhav Foundation gave me free sanitisation kits and training to become a SHE," says Anasuya, a SHE candidate. "I soon started getting orders to sanitise places from nearby shops and houses. The training has given me a sustained source of income during these tough times."

Digital skills Skill gap is a complex challenge India has been facing, coupled with high school dropouts. The global pandemic has further highlighted this issue and the need for skilling, upskilling and reskilling amongst marginalised communities, especially in the post-pandemic era, where niche digital skills are an absolute necessity. The issue becomes even graver, with candidates coming from disadvantaged backgrounds or with physical disabilities.

An inspiration: Lowe's skilling programme

To meet this challenge, particularly in the IT city of Bengaluru, Lowe's crafted a talent development programme in partnership with Samarthanam Trust for the Disabled (100 candidates), Lok Bharti (400 candidates) and Magic Bus (335 candidates) that advances youth's critical digital and cognitive capabilities, their social and emotional skills and their adaptability and resilience. Stories of youth securing well-paying jobs during the lockdown have been an inspiration for Lowe's to stand to the commitment to skilling, as developing this muscle will also strengthen communities for future disruptions projected from anticipated pandemic waves.

Youths and people with disabilities who willfully began the course have learned how to communicate effectively in English, along with training in various skilling programmes and mock interview sessions. The trained candidates have gained in confidence, some of them even bagging jobs in corporates and turning into a guiding light to their families, who were in distress during the pandemic. "During this time of the pandemic, Lowe's provided me with an opportunity," says Ritika M.S. "After the training, now I am able to earn ₹9,000 as a data operator and able to support my family."

The pandemic has further highlighted the skill gap and the need for skilling, upskilling and reskilling amongst marginalised communities, especially in the post-pandemic era, where niche digital skills are an absolute necessity. Lowe's, through its focussed CSR programmes, has trained more than 800 youth to support livelihoods, apart from strengthening the health infrastructure.

Lowe's has a long way to go and there are many areas where the Covid crisis has acted as a catalyst. While the organisation stood for providing immediate support to the communities through food aid programmes, strengthening of the healthcare infrastructure, it has also kept its sight on addressing long-term value gaps, such as revisiting skills needed to survive in the future, investing in social innovation and multidisciplinary collaboration ventures with the government. All through its 100-year history, supporting local communities has been integral to its DNA. And it is presumed to continue to do all it can to enable everyone to get through these trying times.

While the case counts in India have dropped in recent months, the crisis is far from over. With health infrastructure slowly strengthening, it is critical to fill the gap of trained allied health personnel, technicians, to manage equipment along with medical and non-medical staff trained in equipment usage, as also sanitization methods and armed with SOPs for clinical protocols. The aim is to make maximum districts self-reliant with trained vaccinators undertaking awareness drives to council and get communities vaccinated. Lowe's CSR programme is looking to build capacities of Women Self Help groups to act as Sanitization Hygiene Entrepreneurs; build capacities of Asha/ANM/PHC staff to ensure they have skills & planning capacity to make states Covid-free; upskill & reskill BE electronics engineers to repair and maintain medical equipment's; and upskill & reskill ITI candidates to be medical equipment technicians.

Lowe's adheres to its 100 years of believing in the promise of making homes better for all! ◆

AMERICAN EXPRESS

From crisis to hope

In March 2020, Covid-19 left people either unprepared or underprepared to face the consequences of unexpected lockdowns. The world witnessed sudden dips in economic graphs, unprecedented unemployment, reduced purchasing power, and in some cases even homelessness and absence of basic needs such as food and clean drinking water. Often labelled as 'non-essentials', craft products, as always, were the first to be struck off customer wish lists with constrained expenditure.

As one of the largest financial services companies in the world with an extensive small business customer base and merchant network, as well as over 63,000 colleagues around the world, American Express has an opportunity – and responsibility – to play a part in the financial confidence of communities. Across the world, American Express provides financial support to businesses and communities that have been most exposed to the economic impacts of the pandemic and is investing in their resilience and growth through recovery, and beyond. Building on this commitment, in India it partnered with Dastkar, a non-profit organisation supporting the lives of more than one lakh artisans every year working with over 600 crafts groups to provide a grant of ₹10 million (~$133,000) to support over 13,000 craftswomen across 21 states in the country for its Artisan Support Fund.

The first cohort announced covered craftswomen from Delhi, Haryana, Rajasthan, Uttar Pradesh, Uttarakhand, Assam, Gujarat, Himachal Pradesh, Madhya Pradesh, West Bengal, Maharashtra, Jammu and Kashmir, Tamil Nadu, Karnataka, Odisha, Jharkhand, Manipur, Telangana and Bihar.

Hundreds of weavers were affected due to Covid-19 in Assam, due to sudden closure of marketplaces, and subsequent decrease in cash flow. The funds allocated by Dastkar's Artisan Support Fund were used to procure cotton yarn and pay wages of the women weavers. "The weavers' condition has improved as they have achieved a sense of self-reliance and we hope to include more women into the project." says Rakhee Choudhary, Founder & CEO of Mulberry. Similarly, funds disbursed to Naie Kiran in Kashmir were used to pay unpaid wages and dues and procure raw materials from various regions. Another recipient of funding through this grant, Anshul, Product Developer and Design Trainer at Krishna Wool in Himachal Pradesh said, "We are thankful to the organizations for paying heed to our trials and tribulations during Covid-19. The funds have provided us with some security which further encouraged us to keep moving on."

Four core areas Realising the inevitability of the economic impact of the pandemic, the grant focused on solutions to relieve these craftswomen and their communities from future financial pressures and prepare them well in advance to recoup amidst the global crisis. The initiative supported the craftswomen in four core areas, namely, raw material, wages, marketing and product development. The objective was to help them sustain their craft and livelihoods in the longer run.

To showcase the maker-to-market lifecycle, highlighting the challenges faced by many of these small enterprises and traditional arts and crafts businesses, American Express launched a holistic communication campaign giving an immersive experience of their lives. #BackingWomenArtisans used multiple media formats to showcase the art and crafts and personalised stories of the women artisans through long-format content focusing on their resilience, grit and innovation in the face of extraordinary challenges. The immersive experience came alive in the podcast series #HerCraft which included using local folk music and sounds of local habitats. The series was aired on Fever 104 FM radio channel every Wednesday and Friday for 30 days and was also available on Spotify, the App Store and Google Play.

From crisis came hope and recovery. Within a short span of seven months, the grant was able to create an impact on 67 groups across 21 Indian states, with more than 13,000 craftswomen benefitting directly from the project. More than 50 craft skill sets, the only means of livelihood for lakhs of women artisans, have found new life and sustained their community. American Express is committed to backing communities and supports several community initiatives in India encompassing volunteerism, digital literacy, architectural restoration, environment, and education. ◆

ADANI FOUNDATION

Innovative farming, inclusive growth

When there is no farm work, the women in Tiroda take up incense stick making

The Adani Foundation contributes directly to the attainment of 'Decent Work and Economic Growth (SDG-8) through its work in the core area of Sustainable Livelihood Development (SLD).

A major component of SLD interventions involves the upgradation of farming skills through improved cropping practices and crop diversification. For instance, the Foundation facilitates adoption of System of Rice Intensification (SRI) technique to shift towards low-cost, organic farming that requires less water. This technique uses only organic manure, giving a higher and high-quality yield. Currently 12,000 farmers use the SRI technique in Tirora (Maharashtra), Dhamra (Odisha), and Surguja, Raigarh & Raipur (Chhattisgarh). It pays particular attention to bring women working in agriculture into the mainstream by facilitating direct and equal access to training/knowledge of improved agricultural practices such as SRI. It must be noted that increasing male migration to cities often leads to feminisation of agricultural duties, making inclusive growth a critical element of holistic agricultural interventions.

Similar to the organic SRI farming programme is the Wadi programme in Dahanu, Maharashtra, wherein farmers are supported to adopt multiple natural farm practices. Around 1,100 families have doubled their average household income by cultivating 500 hectares of barren land via a structured blend of horticulture, floriculture, and cultivation of vegetables, assuring round-the-year income. The efforts have drastically reduced migration for livelihood opportunities, enhancing the quality of life and ensuring continuation of education for children. In fact, the families growing vegetables also consume them daily, improving their nutritional status.

In another instance of innovation, date palm cultivators in Mundra have been supported with tissue culture to achieve a superior quality date palm variety, which is replanted to achieve higher productivity. Similarly, in partnership with BAIF Development Research Foundation, Adani Foundation operates nine Livestock Development Centres (LDCs) in different project areas. The LDCs provide training for improved cattle rearing and breeding practices, inclusion of green fodder and shed feeding, as well as vaccination and treatment camps.

Additional income While farming forms the backbone of the rural economy, exploring adjacencies by way of supplementary income generating opportunities enhances a household's standard of living considerably. For example, in Tiroda, when not cultivating paddy, the women take up incense stick making and mushroom cultivation. Some have even explored lac bangle-making as palash trees are found here in abundance. The Foundation supports them by providing incense stick-making machines as well as technical know-how in all three cases.

As agriculture and animal husbandry go hand-in-hand, about 800 families are also engaged in producing organic manure and earn an additional income of ₹2,000 per month. Several women are engaged in the management of such vermicomposting units.

While ensuring inclusivity in agricultural and animal husbandry initiatives by way of imparting scientific training to women, the Foundation also prides itself in supporting the formation and functioning of women's self-help groups (SHGs). It facilitates home-based and other entrepreneurial ventures of women by imparting technical, financial and marketing training to women's SHGs. More than 1,800 members of 198 SHGs are engaged in dairy enterprises, stitching, making snacks, sanitary pad making, etc.

Take, for instance, Vizmart, a women-owned mini-mall comprising 17 outlets providing goods and services to customers in Vizhinjam, Kerala. This includes groceries, fruits and vegetables, poultry, organic items, handicrafts, meals & snacks, laundry, event management and other services. Currently, 17 groups of 107 women own and manage this enterprise. Their turnover for FY21 was ₹67,07,500 with an average monthly earning of ₹5,000-9,000 per member. Similarly, Phoolo Jhano Saksham Aajeevika Sakhi Mandal (PJSASM) is an innovative, sustainable and replicable model of livelihood generation in Godda, Jharkhand. Women underwent sewing machine operator training as required to join the PJSASM SHG for gainful employment. Currently, 1,700 SHG members earn an average income of ₹8,000 (per member) per month.

The Adani Foundation encourages farmers and women entrepreneurs to register as federations, such as companies and producer clubs, to leverage many financial and market-related benefits. For example, Mahila Udyami Bahuddeshiya Sahakari Samiti (MUBSS) a tribal women-led producer company in Surguja, Chhattisgarh is a federation of 49 SHGs with 250 women shareholder members engaged in profit earning ventures. MUBSS has established manufacturing and processing units of masala (spices), uniform stitching, making mid-day meals for schools, phenyl making, etc. The yearly turnover of the society has reached ₹133 lakh with a net profit of ₹27 lakh. The farmers cultivating date palms are registered under the Kutch Kalpataru Producer Company (KKPC), Kutch, Gujarat with 312 stakeholders.

These sustainable livelihood initiatives have made communities not only self-reliant but also resilient. In fact, when factories and service industries were closed due to Covid-19 restrictions, opportunities in agriculture, animal husbandry and home-based enterprises helped the rural population sustain itself. ◆

HINDUSTAN UNILEVER

From good to better

SHOT ON LG W10
TRIPLE AI CAMERA

HUL brings positive change by strengthening employable skills among women

Throughout its journey of over 85 years in India, Hindustan Unilever has carried out its operations with a belief that 'what's good for India, is good for HUL'. The Unilever Compass is the sustainable business strategy of the company. 'Making Sustainable Living Commonplace' lies at the very heart of the compass strategy.

The Compass aims to create a purpose-led and future-fit business that drives responsible growth and encompasses an ambitious set of commitments under three pillars: improve the health of the planet; improve people's health, confidence and wellbeing; and contribute to a fairer, more socially inclusive world.

Through a number of initiatives HUL helps contribute to the SDGs and thereby contribute to the well-being of people and the planet. In manufacturing operations, HUL has significantly reduced water usage, CO2 emissions and total waste generated per tonne of production since 2008. The company has eliminated CO2 emissions from thermal energy in their operations by replacing coal with green alternatives such as biomass and biodiesel.

Through the Hindustan Unilever Foundation the company is working in water stressed locations and has created a cumulative potential of 1.3 trillion litres of water. More than 154 million people have been reached through their Water, Sanitation and Hygiene (WASH) initiatives in India. Project Shakti, aimed at empowering rural women through rural livelihood opportunities has reached nearly 1,36,000 entrepreneurs across 18 states.

Project Prabhat One of the flagship initiatives, Project Prabhat, is a sustainable community development initiative that builds on local community needs at a grassroots level. Launched in December 2013, it focuses on engaging with and contributing to the rural communities around HUL's key sites, such as factories, branches and depots.

The programme uses HUL's scale for good to positively impact over 7 million lives. The company's factories, located across the rural and urban landscape of India, offer a unique chance to understand and address the social, environmental and economic challenges and concerns of local communities residing there. HUL's 19 Prabhat Livelihood centres have been instrumental in bringing positive change by strengthening employable skills and income generation among rural communities. They have further enhanced employment in both the farm and non-farm sectors by providing vocational skilling to unskilled women and young people as well as upskilling semi-skilled young people.

Entrepreneurship support services and financial linkages to micro entrepreneurs have also been provided, as has job placement for skilled (formal + vocational) young people. The company made certain there is improvement in the agri-value chains enhancing the yield, quality, marketability of farm produce, thereby increasing the income of farmers. In the farm sector particularly, Project Mooo works with dairy farmers to improve milk yield and productivity through digital inclusion.

Prabhat also launched a first-of-its kind centre in Kolkata wherein PwDs (Persons with Disabilities) are trained to become e-commerce professionals. Prabhat is also working in the area of nutrition in line with the Government of India's National Nutrition

Mission (Poshan Abhiyaan) to promote positive nutrition practices. Prabhat's 'Poshan Saathi' programme focuses on the health of women, especially pregnant and lactating women (PLW). It focuses on building a cadre of outreach workers who help rural women, adolescent girls and mothers of children under five in their nutrition journey. Its factory employees have conducted sessions on the importance of good nutrition and hygiene in schools, anganwadis and mohallas, thereby positively impacting people.

During the Covid-19 pandemic, the Prabhat team scaled up its efforts towards healthcare by launching telemedicine centres in seven states. This along with health camps helped provide access to healthcare in rural communities where affordability, quality and accessibility are a challenge.

Prabhat's ultimate aim is to build sustainable communities in and around HUL sites while also creating financial, social and environmental impact. Prabhat Livelihood Centres have equipped over 88,000 people with essential skills and created jobs for about 50,000 people across the country.

Prabhat's water initiatives focus on working with farmers around HUL factories, to help manage the demand and supply of water that is used in agricultural practices. This programme helps collectively build robust water structures by mapping community water resources, to provide innovative water conservation techniques. By strengthening water governance at the village level through Paani Panchayats, the initiative has benefitted more than 21,000 farmers.

Prabhat's waste management programme has helped promote the concept of zero waste to landfill in communities. Focusing on circularity of both wet waste and plastic waste, the project has been undertaking multiple activities including awareness sessions for waste segregation at source, creation of a community biogas plant, behaviour change communication and promotion of kitchen gardens at a household level.

Within a year of its launch, the Poshan Saathi programme enabled remarkable behaviour outcomes with a 9 per cent increase in early initiating of breast feeding within an hour of birth, 9 per cent increase in receipt of antenatal check-up (ANC) at a health facility, 4 per cent increase in number of ANC visit by PLW and 3 per cent increase in consumption of IFA tablets. It has provided access to nutrition to over 2.7 lakh pregnant women, adolescents, and mothers of children under five.

In order to help other corporations benefit from the learning of these initiatives, the company has been sharing their learning with other key stakeholders. Through the Impact4Nutrition forum, as a knowledge partner they have handheld different corporations to kick-start the School Contact Programme on Nutrition in their own regions. Their endeavour is to now create a model of resilient eco-villages that can be replicated by other industries, for the benefit of nation building. ◆

YES BANK

Forging lasting associations

Yes Bank supports nano enterprises to empower women

In line with its corporate social responsibility policy, Yes Bank has aligned its core business with global sustainability frameworks, chiefly the UN's Sustainable Development Goals (SDGs), the Paris Agreement on climate change and the Principles for Responsible Banking (PRB).

As part of its 'responsible business' ethos, Yes Bank has integrated sustainability into its core operations and linked sustainable development with stakeholder value creation through innovative solutions and services.

In recent times, the bank has been focussing on SDG-8 (decent work and economic growth) for rehabilitating and sustaining micro, small and medium enterprises (MSME) sector, in the wake of Covid-19. To mitigate this, the bank has been taking steps to increase awareness on risks of infections, prevention and immunity controls, as also distributing safety kits and working towards minimising vaccine hesitancy amongst its beneficiaries.

Yes Bank has endeavoured to provide MSMEs comprehensive support through a combination of CSR projects designed to nurture entrepreneurial culture and skill future workforce. It has introduced various initiatives which focus on catalysing employment and entrepreneurship opportunities for 100,000 youth over the next five years. The bank has a targeted approach towards the same through Yes Foundation, the bank's CSR implementation arm.

Widening the scope of its skilling initiative, Yes Foundation has also committed itself to inspiring the youth of India to lead socio-economic development by skilling themselves for market-oriented jobs or taking to enterprise. While there isn't a direct financial benefit for the company that can be attributed to the approach, it does add non-financial value in terms of better stakeholder engagement and reputation enhancement.

To strengthen local economies, develop new commercialised technologies and build capacity for import substitution, Yes Foundation has partnered with several non-profit organisations to incubate 200 micro enterprises and promote 60,000 nano enterprises. The projects on nano enterprises maintain a distinct focus on empowering women in rural areas.

Arjan Craft, located in Deoria, Uttar Pradesh, has been encouraging women's participation in preservation and development of local crafts, skills and promotion of the art, which has also generated employment. It has, through packaging and branding, transformed the products in an artistic way.

Shared value Pooja Shahi, who owns Arjan Craft, makes jewellery from the thread of macramé. She has worked with rural women on making home decorative items too. It was through Yes Foundation's CSR intervention that Shahi was able to evolve her jewellery making skills. Today, some 350 women are associated with Arjan Craft. Its products, made by these women, have been selected in the ODOP programme at district level.

These women are earning an average of ₹1,500-2,000 per month. Arjan Craft has the potential to engage more than 1,000 women now. And it earns an annual revenue of ₹5 lakh plus.

Yes Bank has been encouraging employee engagement to further its social goals. The bank has launched a programme called EVOLVE (employee volunteering virtual experience) in 2021, which offers opportunities to 'Yes Bank'ers to engage with the beneficiaries of its CSR projects. The bank's employee volunteers provide financial literacy to rural groups; build capacity of select incubatees through a consultative approach; and deliver work readiness module to trainees. Till date in 2021-22, more than 1,400 employees have contributed over 2,200 volunteering hours.

This collaborative, all-round approach has enabled the bank to forge lasting associations with all its stakeholders including communities, non-profit organisations, governments, corporate peers and civil society, creating a broad network of relationships that multiplies the impact. Actualising its efforts towards SDGs, Yes Bank has developed and implemented these programmes to enhance and create shared value through a unique, scalable and sustainable model.

Yes Bank believes that strong partnerships are critical to understanding the needs of communities and formulating effective strategies to maximise their outreach and impact. The bank also believes that it is vital that diverse groups in the larger community are included and encouraged to participate in the process in close co-ordination. ◆

NILA

Art & craft shines bright

Nila is a non-profit initiative of the Lady Bamford Foundation, the CSR entity of JC Bamford (JCB) India Limited. Nila's work pledges to honour and preserve India's diverse handicrafts – particularly sustainable textile and crafts – by growing and supporting channels of capacity building, market access and circular, localised production systems.

Although the interactive, public-facing side of the project – Nila House – is based in Jaipur, Nila's work is pan-Indian, on the field in dozens of communities, directly impacting the livelihood of over 9,300 artisans across 20 states.

Nila's journey began in 2016 with an in-depth assessment of India's existing craft ecosystem and its challenges. A plethora of artisan communities were discovered, who were struggling to survive, despite their exceptional skills. Craft practitioners such as indigo dyers were often forced to abandon traditional, natural practices for cheaper, synthetic quick-fixes. Income insecurity brought on by a combination of fickle weather patterns – years of drought exacerbated by depleted land and water resources – and lack of market access, painted a bleak forecast for the future of these precious crafts.

Nila's programme focuses on a multi-tiered approach of research, community engagement, skill-building, design innovation and business development. Its core team works with a network of experts across the farm-to-fabric chain, developing models that can be shared and adapted to communities across diverse regions. For instance, they are currently working on a project to support the revival of indigenous cotton cultivating and spinning in Gujarat, Rajasthan and Nagaland.

Nila's goal was to create a direct link between artisans and customers

Capacity building and community engagement often go hand-in-hand, carried out through intensive workshops by the Nila team and a network of collaborators and mentors. The workshops are designed to build individual and community resources, frequently taking place in village meetings thereby organically creating an inclusive conversation and sense of community investment and accountability.

Whilst market access has long been a challenge for the handicrafts and handloom textiles sector, this gap was particularly amplified during the pandemic. Hundreds of thousands of artisans found themselves in acute economic distress as orders dried up. Urgent introspection revealed the importance of technology. During the second Covid wave of 2021, Nila developed an agile campaign, #NilaConnect. The goal was simple – to create a direct link between artisans with low market visibility, and customers.

The simple model of the campaign highlighted the work of over 50 artisans across nine states. Artisans looking for orders or with existing stocks ready to purchase were immediately connected to new clients, bringing work and income at a vulnerable time.

Nila's work marries social responsibility with creative business acumen as this is truly the essence of a lasting model. The extraordinary work and wisdom of traditional crafts becomes somewhat meaningless if it is unable to reach an audience that will cherish it, and perhaps most importantly, pay for it. The craft communities carry a purpose and sense of pride in their work; Nila's role as a facilitator shares this with a global audience. The Nila Studio works in close collaboration with artisans and partnering organisations to communicate the precious value of crafts with a growing community of customers in countries across the world.

Nila's collections as well as their special direct-to-artisan exhibition-sales have found an engaged audience across the world. To date, Nila's craft-platforming initiatives have generated sales of ₹4,75,00,000. As a non-profit, the proceeds are channelled back to supporting the craft communities they work with.

In the span of six years, Nila's vision and work has grown into a valuable repository for sustainable solutions, design innovation and market linkages across the craft and design sectors. The hope is to galvanise the various siloed sectors into a movement that will influence policy and action in favour of regenerative practices that are rooted in the well-being of the environment and various communities. ◆

YOUTH4JOBS

Leaving no one behind

Mandar Advankar was born speech and hearing impaired and raised single-handedly by his mother. When she fell ill with cancer, he stopped studying after 10th grade to try and support his family. It was difficult to get even odd jobs during Covid. He got in touch with Youth4Jobs, desperate for money as his mother's treatment had to continue. Y4J oriented him through the interviewing processes, job roles and placed him in Flipkart. Today, he draws a steady salary of nearly Rs2 lakh annually.

Persons with disabilities (PwD) are 15 per cent of the world's population, or one billion people, of whom 80 per cent live in developing countries. There is a close connection between poverty and disability. PwDs encounter discrimination and exclusion on a daily basis because of deep rooted myths. This means, in particular, they have been excluded from development programmes and funds, as well in areas of economic, political, social, civil and cultural life, including employment, education and healthcare.

Youth4Jobs (www.youth4jobs.org) is the largest organisation in South Asia which skills youth with disabilities and links them to sustained livelihoods. Set up in 2012, Meera Shenoy, the Founder, leveraged her experience in market-linked skilling of rural and tribal youth in senior government positions, World Bank and UN, to create a replicable-scalable model for a more vulnerable segment of society – youth with disabilities. There were several challenges in the beginning like identifying disabled in rural areas: getting good quality special educators or sign language instructors. Youth with disabilities lacked self-confidence facing negative family and societal attitudesevery day. Their education levels were low-barely 0.4 per cent in higher education; and even educated youth were unemployed. This kept them in the vicious cycle of poverty.

Y4J vision is to help move them "to the virtuous cycle of opportunity".Today the Y4J programmes have achieved scale partnering with government, companies and other NGOs working in this space. Highlights of the work are:

i. Village Connect where community workers reach out to rural households to help them access government entitlements. To date this program has touched 7.8 million households.

ii. The job-linked skilling programme for less educated, rural youth gives 21st century skills to the unreached online. To date, it has trained 28,100 youth with disabilities ranging from locomotor, speech and hearing impaired, cerebral palsy, downs syndrome, learning disabilities. It works with 900 companies for placements ranging from Amazon to Tata-Starbazaar.

iii. College Connect-Smart Inclusion Centre works with educated youth in colleges. It has IT and BFSI Academies, besides the Finishing School. Webinars and workshops are held to make educators, trainers' disability-confident and expose them to assistive technology which improve learning outcomes. To date 1,001 youth with disabilities have been placed in organisations ranging from Accenture to HSBC. Incomes are an average Rs2.5 lakhs per annum.

iv. Company Connect team reaches out to all new recruiters giving them a series of services ranging from sign language workshops, sensitisation workshops, accessibility audit to ensure hired youth is productive and company benefits.

v. Youth4Jobs Centre of Inclusion brings out studies in industries which have scope to hire youth with disabilities. Released by the government, they both influence policy and encourage companies sitting on the fence to begin their inclusion journey.

Third party studies show the transformational impact of the program on stakeholders. The youth with disability moves from being a liability to an asset, whom the family and community is proud of. He saves, sends money back home which is used to retire high-cost debt, sibling education and health. In fact, Y4J work rests on the firm faith that a job to one disabled member of the family, takes the entire family out of poverty in a sustained manner. ◆

CROPIN

Digital farming

Tech-enabled agriculture: Cropin helped farmers with right inputs

According to the National Family Health Survey 2015-16 (NFHS-4), 45.9 per cent of scheduled tribe members were in the lowest wealth bracket, accounting for one-fourth of the total population that lives in the poorest wealth decile. Undoubtedly, the economic growth of the tribal community is currently critical for the well-rounded development of the country.

Jharkhand, Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Odisha, and West Bengal together form the core of India's tribal belt. Over 70 per cent of the total tribal population and 8.6 per cent of the country's inhabitants have lived here for generations.

Smart Villages was launched in 2015 by Tata Trusts, under the personal initiative of chairman Ratan Tata, through its nodal agency Collectives for Integrated Livelihood Initiatives (CInI). The Mission aimed to engage with 101,000 households across Jharkhand, Odisha, Maharashtra, and Gujarat, to increase annual household income from approximately ₹30,000 to ₹1,00,000, and thereby improve their quality of life, through multi-layered livelihood interventions that fell within the framework of the UN Sustainable Development Goals (UN SDGs).

While farmers in the region had the resources for crop production, they needed to access scientific farming practices that enhanced agricultural productivity. Other factors also have an impact on smallholder farms. Limited landholding size and land fragmentation, combined with inadequate resilience to the effects of climate change, restricted their income. Without membership in cooperatives, they could not benefit from the power of aggregation that provides easier access to markets. Lastly, farmers did not have sufficient information regarding supply and demand, current market prices, and quality standards.

Cropin intended to bridge this gap between their current capabilities and the opportunities for growth with a platform purposefully designed to cater to the unique problems that smallholder farmers face. To begin with, Cropin tailored the solution to each of their needs by enabling the creation of digital records of individual farmers. With this farmer-centric information, the implementation team could pre-estimate the inputs required to increase cost-efficiency and orient the farmers to production costs.

Best practices Based on what they cultivate, agriculture experts supported them with timely information on the package of best practices and climate-smart crop advisories. The data gathered in Cropin's platform facilitates production projection for the GPS-tagged farm plots, which helps with market linkage and farm-to-shelf traceability.

Before implementing the project, some of Cropin's concerns were the low digital literacy in the region and the possibility of farmers' reluctance to adopt modern cultivation practices. However, early adopters like Pratima were critical to driving the digital transformation.

Pratima Nag is one among nearly 400 hundred tribal individuals who call the village Rongo, in Khunti District, Jharkhand, her home. She is one of the Lakhpati Kisans that Tata Trusts had envisioned, cultivating paddy and other high-value crops on small parcels of land. Enabled by the right resources, information, and technology, she has almost tripled her annual income, from ₹48,400 in 2018 to ₹1,30,000 within three years.

The CInI-Cropin partnership saw 4,300+ farmers across Godabanda and Dhalbhumgarh regions in Jharkhand benefit from tech-enabled agriculture. Farmers cultivating vegetables including capsicum, green peas, watermelon, bottle gourd, cauliflower, chilli, cabbage, brinjal, bitter gourd, and tomatoes saw a steady improvement in their yields and accelerated income growth. An impact performance report by the CDC Group in partnership with 60 Decibels revealed that 84 per cent of beneficiaries reported improved quality of life. Among them, 38 per cent attributed the improvement to increased income, 32 per cent pinned it on the ability to pay for expenses, and 31 per cent on enhanced crop production.

The last few years demonstrated the success of a bottom-up approach, where enabling the farmers at the grassroots level ensured economic growth for marginalised communities. Further, it prompted greater participation of women in decision-making and income generation for the household.

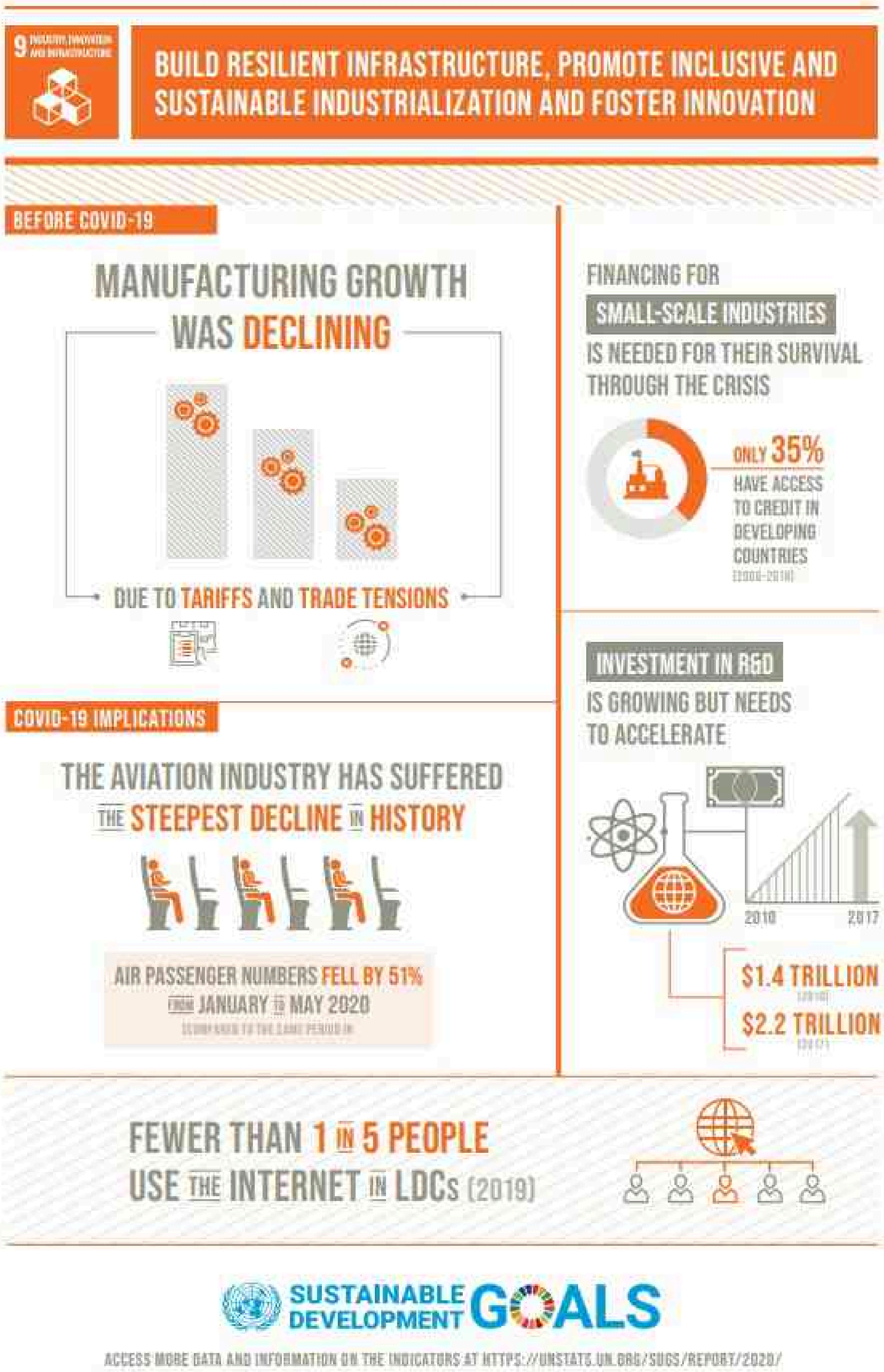
Given that more than 80 per cent of farms worldwide are less than two hectares in area, Cropin strongly believes that smallholder farmers are a key to advancing nutrition and food security globally. Empowering smallholder farmers to manage their resources sustainably, build resilience to adversities, and benefit from information and technology made available to them would help achieve the UN goal to achieve decent work and economic growth for millions. ◆

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

INDUSTRY, INNOVATION & INFRASTRUCTURE
SNAPSHOT

Goal: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

SANJAY BORADE



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

BEFORE COVID-19

MANUFACTURING GROWTH WAS DECLINING

DUE TO TARIFFS AND TRADE TENSIONS

FINANCING FOR SMALL-SCALE INDUSTRIES IS NEEDED FOR THEIR SURVIVAL THROUGH THE CRISIS

ONLY 35% HAVE ACCESS TO CREDIT IN DEVELOPING COUNTRIES (2006-2018)

COVID-19 IMPLICATIONS

THE AVIATION INDUSTRY HAS SUFFERED THE STEEPEST DECLINE IN HISTORY

AIR PASSENGER NUMBERS FELL BY 51% FROM JANUARY TO MAY 2020

(COMPARED TO THE SAME PERIOD IN [illegible])

INVESTMENT IN R&D IS GROWING BUT NEEDS TO ACCELERATE

$1.4 TRILLION (2010)

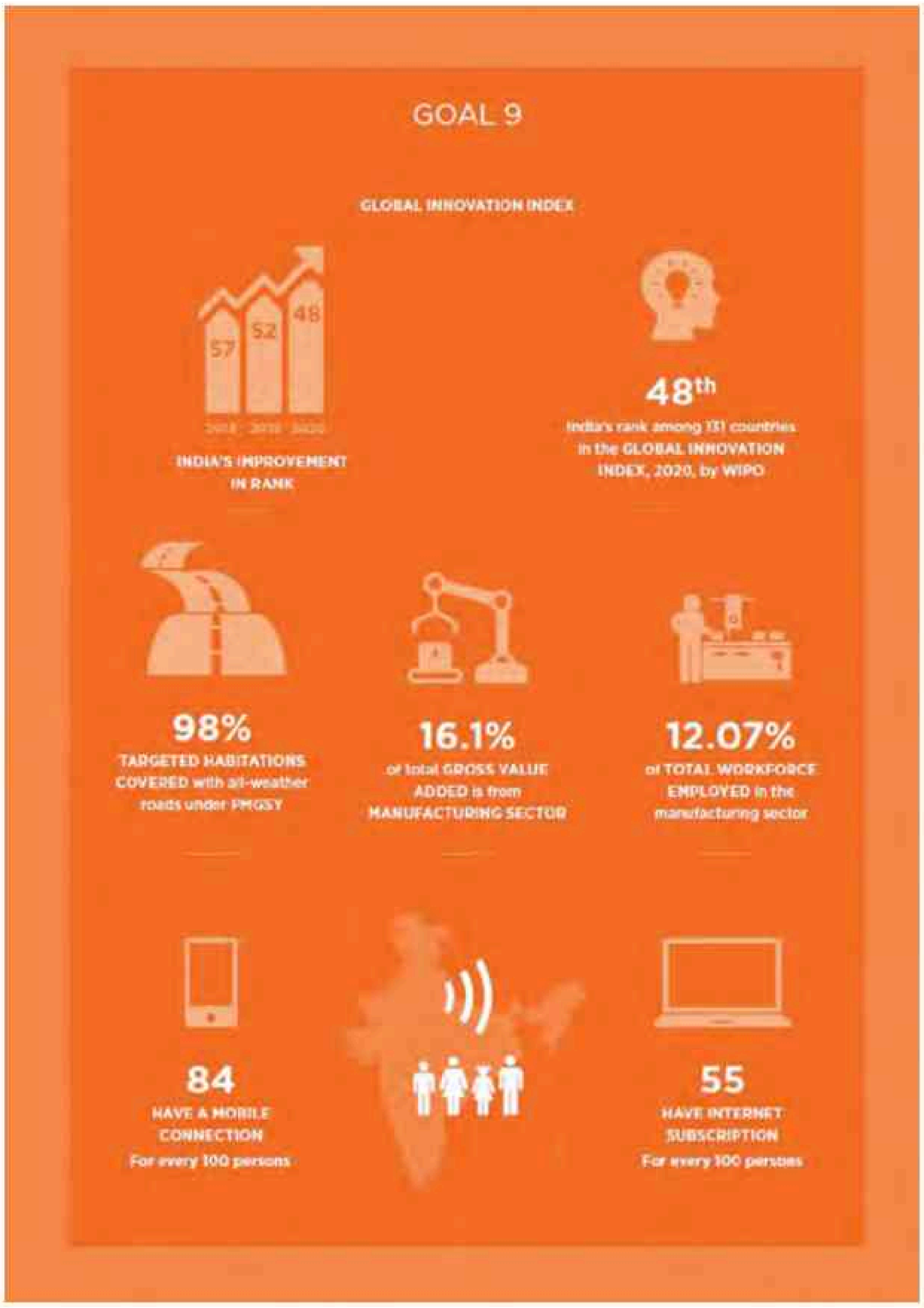
$2.2 TRILLION (2017)

FEWER THAN 1 IN 5 PEOPLE USE THE INTERNET IN LDCs (2019)

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 9

GLOBAL INNOVATION INDEX

INDIA'S IMPROVEMENT IN RANK

48th

India's rank among 131 countries in the GLOBAL INNOVATION INDEX, 2020, by WIPO

98%

TARGETED HABITATIONS COVERED with all-weather roads under PMGSY

16.1%

of total GROSS VALUE ADDED is from MANUFACTURING SECTOR

12.07%

of TOTAL WORKFORCE EMPLOYED in the manufacturing sector

84

HAVE A MOBILE CONNECTION

For every 100 persons

55

HAVE INTERNET SUBSCRIPTION

For every 100 persons

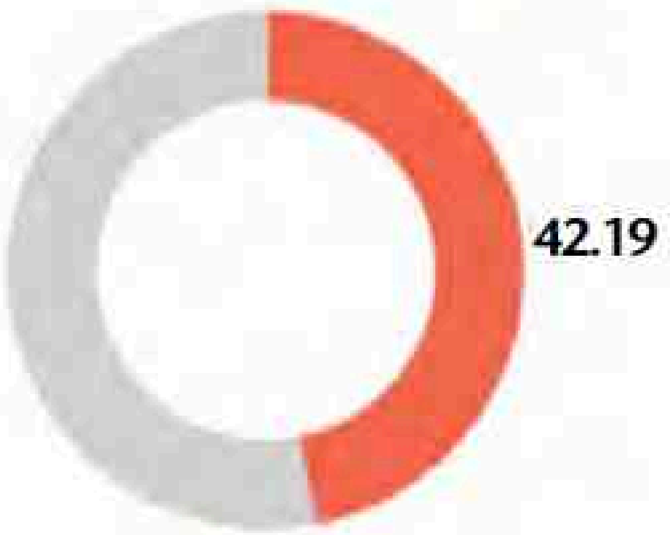
Source: NITI Aayog

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Country Rank

71 / 165

Score



UN Dashboard Status

Major challenges ●

Trend

Moderately improving ↗

India's industries have seen massive growth in recent years along with growing Infrastructure and innovation. Ranked 71st in the world with a score of 42.19, the 2021 UN Sustainable Development Report accurately notes that India is moderately improving despite significant challenges ahead.

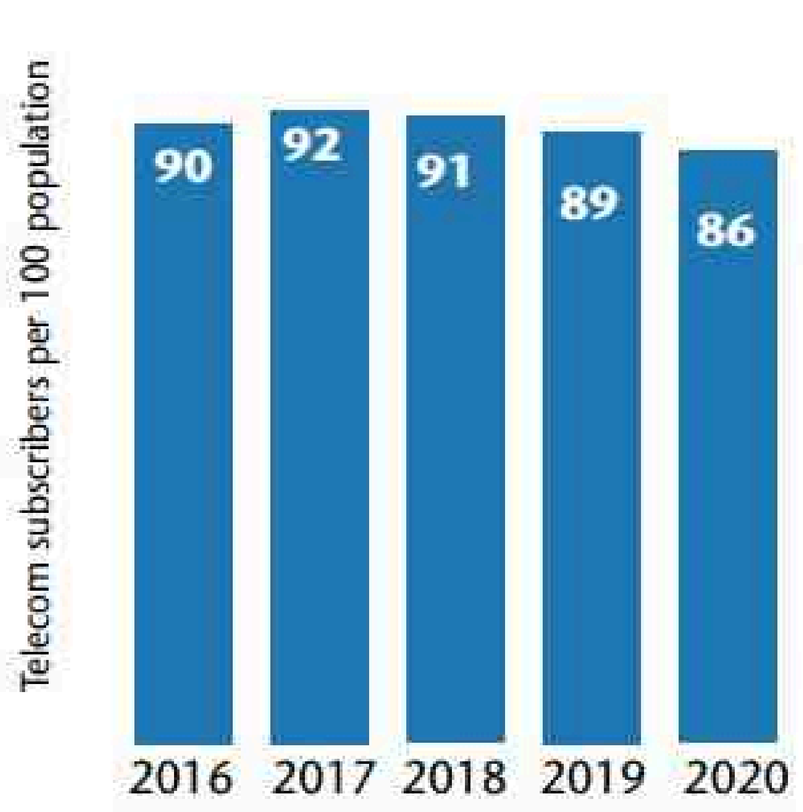
India's targets for 2030 include:

- Develop quality, reliable, sustainable, and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
- Promote inclusive and sustainable industrialization and, significantly raise industry's share of employment and GDP, in line with national circumstances
- Increase the access of small-scale industrial and other enterprises, to financial services, including affordable credit, and their integration into value chains and markets
- Upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
- Enhance scientific research, upgrade the technological capabilities of industrial sectors including, encouraging innovation and substantially increasing the number of research and development workers per million people, and public and private research and development spending
- Facilitate sustainable and resilient infrastructure development through enhanced financial, technological, and technical support
- Support domestic technology development, research, and innovation by ensuring a conducive policy environment for industrial diversification and value addition to commodities
- Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet

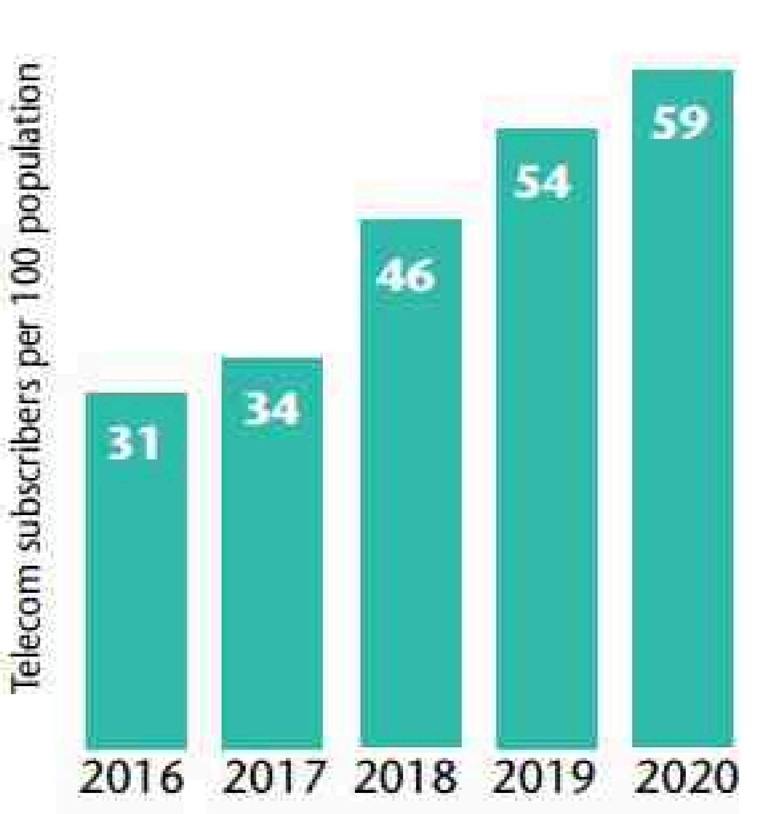
Infrastructure in India has grown significantly in recent years and is a clear reflection of the country's growth. Roads, banks, shops, telecommunications, and internet services form the infrastructure that can boost India's growth trajectory. Over the last seven decades, it is estimated that India's total road network has grown 16-fold. This is reflected in the development of roads. Where India had 4 lakh kms of roads in 1951, has developed to 64 lakh kms in 2019. This expansion has occurred in both rural road and urban road networks. About 43 lakh kms of rural road network was added in last 70 years – a massive 2000 per cent increase.

Increase in information and communication technology

Teledensity



Internet density



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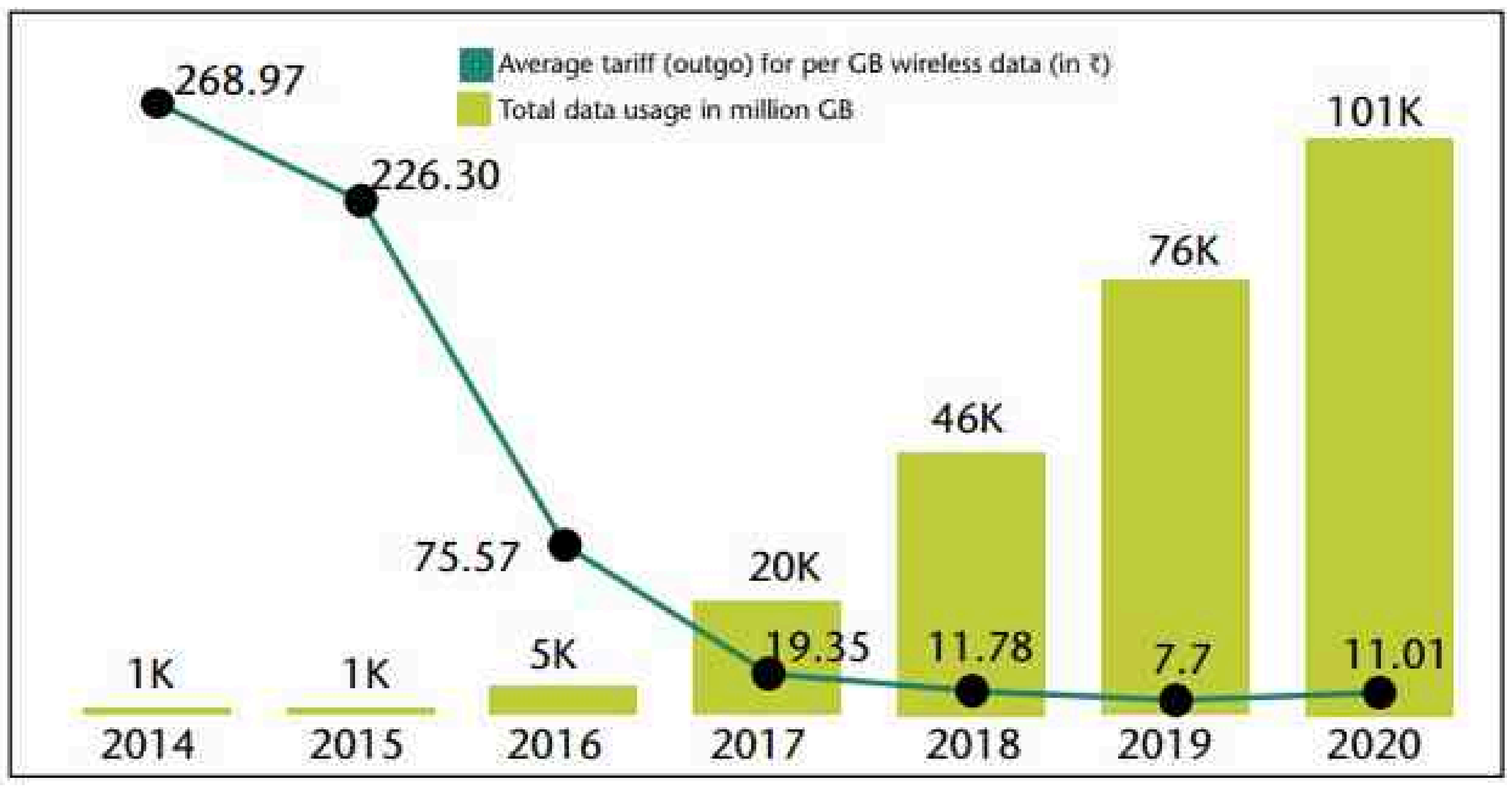


Similar growth trends are seen in the nation's internet density, where the adoption and accessibility to internet increased by 90 per cent, reaching 59 subscribers per 100 in 2020. Teledensity, however, has seen a slight decline in the recent years, with 86 out of every 100 persons having a telecom subscription in 2020.

The increase in internet usage can also be attributed to the increasing accessibility and affordability of internet service. From 2014 to 2020, data consumption has increased 100-fold. This has been accompanied by the steep decline in wireless data costs, which dropped from ₹269 per GB of wireless data in 2014 to ₹11 in 2020. Improved accessibility to the internet and decreasing average cost per GB of data has resulted in the massive growth of data consumption.

This increase in accessibility to the internet has also meant that people have gained access to digital banking. As a result, there has been an increase in the value of digital transactions in the last six years, reaching ₹1,623 lakh-crores by 2019-2020, a 76 per cent increase since 2015. While Covid impacted transactional value in 2020-21 by ~13 per cent from the previous year's value, the volume of transactions increased.

Retail digital payments have also grown significantly over the past few years, with UPI (Unified Payment Interface), BHIM (Bharat Interface for Money), and NETC (National Electronic Toll Collection) simplifying digital payments across the nation. For example, from January 2019 to June 2021, transactions on UPI increased 400 per cent, growing from 67.3 crore in 2019 to ₹280.8 crore in June 2021. Similarly, NETC transactions have been increasing since its mandate in Jan 2021.

Industrial development is also booming. Changes in India's Industrial Policy since 1991 have created more significant opportunities for both corporates and start-ups in the country. By 2018, over 17 lakh companies were registered in India, as opposed to 1.92 lakh companies in 1988. Of these companies, 60 per centare distributed across Northern and Western India, with 22 per centin the South. East India has also seen a growth in the number of companies while staying relatively consistent over the last two decades.

With the growing presence of corporates in the country, the nation's CSR spend has also grown. Passed in 2014, the national CSR Law, a component of the Companies Act, has paved the way for 30,000 companies to invest and engage in social impact projects. In the last six years, ₹92,605 crores have been invested in CSR, with 38 per cent(₹34,809 crores) being directed towards pan-India projects. A quarter of funds (₹21,607 crores) have been invested in Western India. Central and Northeast India, however, received the least amount of CSR spend.

Role of MSMEs and Startups

MSMEs continue to play a major role in India's economy and also contribute significantly to its GDP and GVA, at nearly 30 per cent, which has remained constant from 2011 to 2019. MSME's share in the annual budget has also seen an increase, with contributions rising from 0.18 per centin 2014 to 0.25 per cent in 2020. Though the contribution to MSMEs in the Union Budget peaked to 0.30 per centin 2017, it has since remained relatively constant at a 0.25 per cent share of the annual budget. Though a miniscule proportion of the Union Budget is spent on this sector, India has over 6.34 crore MSMEs. This indicates that the Central and State Governments need to invest a much larger share in the development of this sector, in proportion to the quantum of population benefitting from it in terms of direct and indirect livelihoods, and the quantum of its contribution to GDP. In 2020, 30 per cent of the national GDP was contributed by MSMEs. As per data from the Ministry of Micro, Small, and Medium Enterprises, over the last five years, MSMEs have consistently contributed around 50 per centof India's total exports, which has remained stable since 2015 till date.

Start-ups in India are also on the rise, as per reports from the Department for Promotion of Industry and Internal Trade (DPIIT). As of Mar 2021, the DPIIT recognized 44,979 start-ups across the country, which employed over 5 lakh people, averaging 11 employees per start-up. Nearly 45 per cent of these start-ups were founded in just three states/UT - Maharashtra (19 per cent), Karnataka (13%), and Delhi (13 per cent). North-Eastern States and Jammu and Kashmir have reported absolutely no start-ups during this period.

Innovation

The third and final component of SDG-9 is Innovation. The Ministry of Science and Technology tracks R&D in the country. As per 2017 data, only 0.7 per cent of the nation's GDP is spent on R&D, while the global average is 1.7 per cent. India also fares poorly in terms of the number of researchers per million population, with 255 researchers per million when the global average is nearly four times more at 1,198 researchers per million people. Countries such as Israel, Japan, South Korea, Sweden, and Switzerland had a significantly high number of researchers

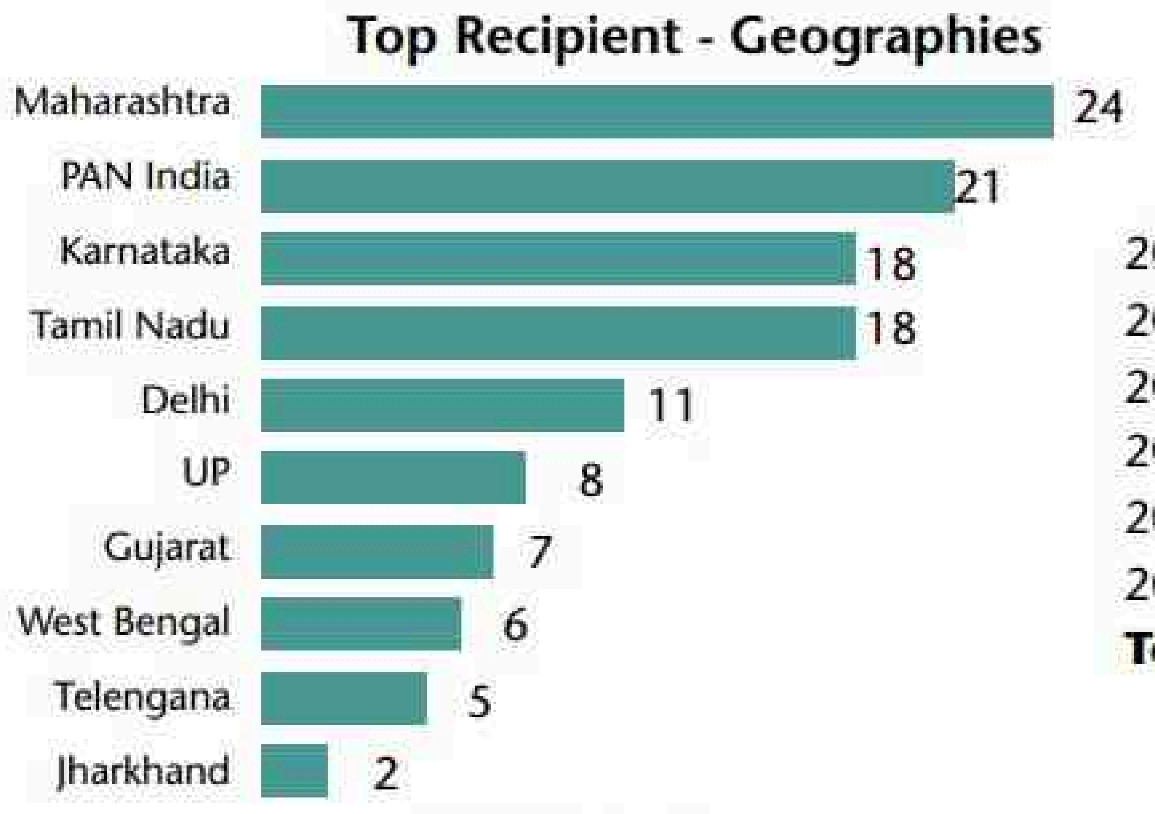
Based on the low resource availability, it is understandable that India's Innovation Index has significant room for growth. NITI Aayog's Innovation Index Framework aims to bring competitiveness among the states and union territories to improve innovations. The framework is designed around innovation inputs that enable five key parameters human capital, investment, knowledge workers, business environment, safety, and legal environment. The outputs are measured through two performance parameters - knowledge output and knowledge diffusion. Delhi currently tops the charts in Union Territories with a score of 46.6, while Karnataka leads the states at 42.5. Lakshadweep, Nagaland, Tripura, and Bihar rank the lowest with a score of 12, 13 and 14 respectively.

CORPORATE CONTRIBUTION

One of the targets for SDG-9 has been the promotion of sustainable industries and investing in scientific research and innovation, all of which are important steps to facilitate sustainable development. Technology incubators have been facilitating sustainable innovation in India. The CSR spend in this sector has been ₹129 crores in the years since the CSR law was passed. This funding has enabled corporate support to technology incubators around India, with many based in Maharashtra, Karnataka, and Tamil Nadu. Some of the companies investing in this area include Robert Bosch, BSE, Indian Clearing Corp. Pernod Ricard, and Pfizer.

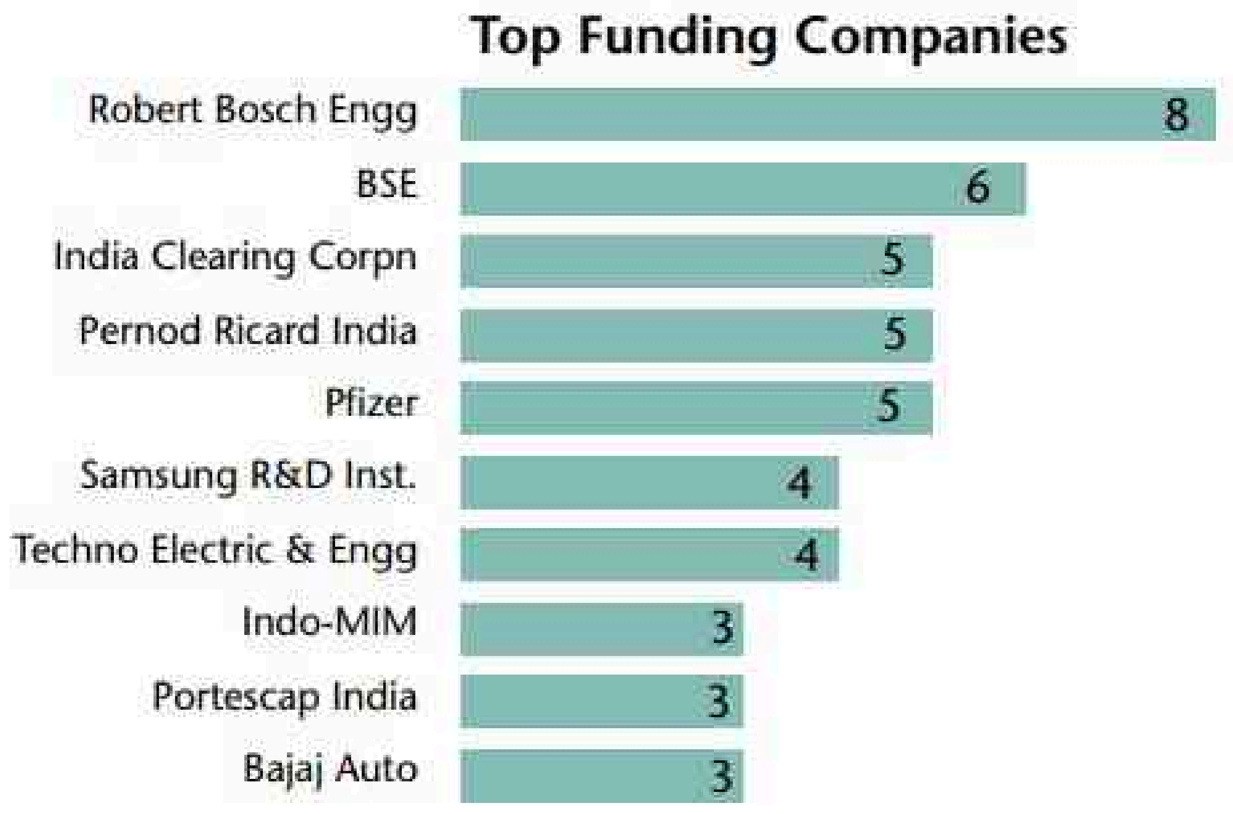
Overall, improved infrastructure is helping development spread across the country, with people in rural India gaining access to resources they previously lacked. Similarly, the easing of laws allows for more industries and start-ups across the nation, which increases employment opportunities as well, helping India progress towards its SDG-9 targets.

CSR spend in Technology Incubators Sector (2014-20)



Top Recipient - Geographies

2014-15	5
2015-16	26
2016-17	23
2017-18	16
2018-19	31
2019-20	28
Total	**129**



Top Funding Companies

©IndiaDataInsights

Notes: Data as updated on MCA portal as of March 2021. All amounts are cumulative and in (₹ crores)

SUN PHARMA
Nurturing Sustainable Communities

Being a global pharma company, we strongly believe that business and responsibility go hand-in-hand. Lasting value can only be created, if the right balance between the triple bottom lines of economic, environmental and social is achieved. Our CSR efforts are focused on serving and helping needy and underprivileged communities in India. Our priority areas include: health, education, drinking water and sanitation.

MOBILE HEALTHCARE UNITS

Our Mobile Healthcare Units (MHUs) deliver primary healthcare services to over 650,000 people across India. These MHUs serve a mix of rural and underserved populations, visiting villages to provide treatment for common ailments, conduct pathological tests, enable referrals, and provide free medicines. This project is implemented in India through Sun Pharma Community Healthcare Society in the states of Punjab, Himachal Pradesh, Gujarat, Maharashtra, Madhya Pradesh, Tamil Nadu and Sikkim.

MODEL SCHOOL DEVELOPMENT

We develop model schools in and around our served communities, enabling and empowering rural school students to access and enjoy equal educational and development opportunities. Apart from building robust infrastructure, we help to implement technology-based learning programmes in schools. We also organise and support various co-curricular activities and related programmes, as operated through schools and educational institutions, located near our areas of operations.

SAFE DRINKING WATER AND SANITATION

We support and encourage provision of safe drinking water, adequate sanitation, and easily accessible hygiene services. Towards this end, we provide access to clean drinking water in villages, construct good quality individual toilets and implement effective behaviour change programmes.

'More for less'

The merger of technology and SDGs – A game-changing win of the era

CP GURNANI

To have a sustainable future, we should not only focus on doing less harm to the planet but also focus on doing what we can to make the world a better place. Our lives changed dramatically during the pandemic, demonstrating an enormous capacity to adapt to new situations and change the way we live. This means that change is possible! The 17 SDGs are indeed guiding lamps for us to change the world for the better. SDG-9 is key to building a sustainable world with equitable growth opportunities. Let us look at how technology can enable this.

Tech-enabled resilient infrastructure: The goal here should be to develop quality, reliable, sustainable, and resilient infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all. Smart cities powered by ultrafast, low latency 5G connectivity will power a more connected community and create opportunities. Organisations can deliver intelligent solutions using 5G, which can enable remote monitoring of energy sites, distribution of energy within a smart-grid, and automation of distribution.

Innovations such as mobility-on-demand, wherein vehicles can be routed in real time to meet the demand for picking up and delivering passengers in fast-varying environments, can help in exploiting unused vehicle capacity to reduce congestion. This is possible through the creation of dynamic optimisation algorithms using real-time information and communication technologies. Milton Keynes in the UK is an excellent example of a tech-enabled smart city, which is now leveraging technologies such as Artificial Intelligence and 5G for autonomous transport. New services are being created with IoT and public data in managing microgrid services to realise climate change objectives. UK Innovate projects are providing a proving ground for start-ups in the smart city ecosystem.

The ride through digital highways: 2020 was a boon for businesses that had embraced digital and a wake-up call for businesses that had not done so. Now is the time to integrate sustainability with digital, which can take us closer to a green digital economy.

With digitalisation as its backbone, many innovative business models are emerging. For instance, platforms enabled by blockchain can enable paperless transactions, to buy and sell properties. Platforms based on Artificial Intelligence can provide live, global, interconnected data to organisations to make informed decisions to meet their sustainability goals. Data sharing and digital economy, with real-time analytics and optimisation, can eliminate the mismatch in supply and demand, resulting in efficient use of resources, for instance, elimination of waste in perishable supply chains. In the IT sector, we are witnessing a transition from buying and operating IT infrastructure to consuming IT infrastructure and capabilities as a service with edge-to-cloud platform-as-a-service model. According to the OECD, the green economy proportion of global market capitalisation is growing, while the fossil fuel sector is shrinking. As described by the OECD and others, the key trends that characterise innovation in the digital age are – data, which is a key input for innovation, increased focus on the development of services enabled by digital technologies, virtual simulation, 3D printing, and other digital technologies providing opportunities for more experimentation, and collaboration-driven innovation.

Importance of R&D: Globally, investment in R&D as a proportion of GDP increased from 1.5 per cent in 2000 to 1.7 per cent in 2015 and remained almost unchanged in 2017, but was only less than 1 per cent in developing regions. As per the World Bank, the top five countries that spend the most on R&D as a percentage of their GDP are Israel, South Korea, Switzerland, Sweden, and Japan. International Energy Agency figures indicate that technologies and best practices could save between 18 and 26 per cent of current primary energy use in global industry.

There is a need for a collaborative approach to research and innovation, which cuts across geographies. The World Economic Forum's Global Lighthouse community is an interesting initiative in this regard. It is a community of world-leading manufacturing facilities and value chains using Fourth Industrial Revolution (4IR) technologies to increase efficiency and productivity, in tandem with environmental stewardship. For instance, a consumer healthcare company coupled advanced controls with green technology to deploy a sensor-fed automated system to cut energy consumption, resulting in 25 per cent less energy consumed and an 18 per cent reduction in CO2.

India is a nation with a large young population – one that can be channelled towards R&D from the grassroots level. India can become a game-changer in innovation with its 'More for Less' innovation model that leverages its strength in indigenous research and extraordinary talent ecosystem to ensure successful outcomes with minimum investments.

The author is Managing Director and Chief Executive Officer, Tech Mahindra

Innovation and infrastructure

India is well-positioned to become a model of corporate sustainability

SINDHU GANGADHARAN

Industrial development and related technological advancements have been an important determinant in the course of our history. Over the last century and more, industry has revolutionised our economies and helped drive our societies. Therefore, it comes as no surprise that industry plays an even more ineluctable role in scripting the future of humanity, one that involves sustainable social, environmental, and economic development.

The 2030 Agenda philosophy of 'no one left behind' requires global partnerships. With more and more countries investing in resilient infrastructure, there's a growing need to improve our existing industrial infrastructure, and here, technological innovation will be key. This is where organisations like SAP can be game-changers in the sustainability story. SAP is building sustainability directly into the core business with their applications that drive sustainability at scale by embedding operations, experience and financial data and insights into the processes. This not only empowers industries and businesses to assess and reduce their carbon footprint and increase resource productivity through circular processes, but it also embeds sustainability as a new dimension of success for businesses. So, businesses can go beyond measuring top and bottom-line results, to include a new dimension of success – the green-line.

Given its sheer scale of industries, India has an excellent opportunity to play a significant role in strengthening the idea of inclusive and sustainable industrial development (ISID) as outlined by the UN. The ferocious flash floods in Uttarakhand last year were a grave reminder of the fallout of climate change and a tell-tale of our future. A massive chunk of glacier – almost 15 football fields long – broke off high in the Himalayas and washed away hundreds of villagers and a hydro plant in the remote valley of Chamoli. This was just one of the 10,000 Himalayan glaciers receding at a rate of 30-60 metres every decade as a direct result of climate change. The region has witnessed multiple floods over the years, including one in 2013 that killed 6,000 people in the same area. A rapid increase in these climate change-induced natural calamities over the last decade has begun to draw the attention of visionary Indian CEOs and eco-entrepreneurs, which are acknowledging these telling trends, and making necessary adaptations to contribute to India's ambitious sustainability commitment.

India is the world's fourth biggest emitter of carbon dioxide, following China, the US and the EU. But its emissions per capita are much lower than other major world economies. India's emissions accounted for 1.9 tonnes of CO_2 per head of population in 2019, compared with 15.5 tonnes for the US and 12.5 tonnes for Russia that year. At the recent COP26, Prime Minister Modi promised to cut its emissions to net zero by 2070. Though it misses the key goal of committing to reach that target by 2050, this is quite a significant step for India, where we get more than 50 per cent of the country's electricity from coal.

The government is fuelling innovation required for sustainable industrial and economic development through its flagship interventions like 'Make in India', 'Pandit Deendayal Upadhyay Shramev Jayate Karyakram', 'Start-Up India' and many more. However, its biggest bet remains the Micro, Small and Medium Enterprises (MSMEs) which, over the years, have grown to become an essential gear driving the economy. India's 42.5 million SMEs employ about 40 per cent of our workforce and contribute about 30 per cent of the country's GDP. It's encouraging to see that government initiatives like Zero Defect, Zero Effect (ZED) are helping to create a dynamic ecosystem of multiple sustainability drivers, encouraging leading companies to take a strong stand on energy use optimisation, green buildings and waste management, furthering their sustainable enterprise journey. However, factors like high-cost initial expenses for implementation of sustainable technologies, uncertain or insignificant economical advantage, slow return on investment and lack of organisational resources remain a deterrent for Indian enterprises. Add to this: less awareness about green products among local customers, absence of practicable guidelines and parameters, employee resistance towards new concepts on sustainability and low public pressure.

A global challenge, climate crisis calls for businesses and countries to move beyond their siloed approaches, commitments, and climate pledges to fully embrace sustainability. The path to a low-carbon future is circular. The good news is that a circular economy is not just about fixing environmental wrongs but brings about opportunities and drives positive impact across industries, sectors, and lives. Working toward a circular economy can protect human health and biodiversity in many ways, including better use of natural resources, such as protecting water and land, thus mitigating the climate crisis. Organisations like SAP are leading this shift with an aim to become carbon-neutral in their own operations by 2023. At SAP Labs India, 95 per cent of the energy consumed at the Bengaluru campus comes from green energy sources. Additionally,

The author is MD, SAP Labs India

70 per cent of the transport services are run on EV with EV charging stations at the campus for employees as well.

Sustainable development calls for institutional and value changes as well as cultural adjustments. It must be incorporated into mainstream policies to promote national and international co-operation. It's great to see a new bandwagon of eco-entrepreneurs emerging in India with products and solutions that target SDGs. EverLoop by SAP is one such start-up that connects stakeholders across the waste value chain to enable the circular economy. They empower businesses to achieve zero waste targets by digitalising the waste value chain, making it more transparent and traceable for corporations and e-waste recyclers alike. There are so many other successful stories coming from SMEs. In the past two years, eight clean-tech start-ups, (not including electric vehicle start-ups), received funding of at least $1 million. These companies range from plastics and tech-enabled recycling to energy efficiency and biofuel, among others. Additionally, the rising fuel prices and regulatory incentives have further fuelled the growth of the solar industry in India.

Today, India is better positioned than ever to become a model of corporate sustainability for the rest of the world. Both large and small enterprises have a unique opportunity to lead the change here. ◆

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Collaborative excellence

A policy perspective for meeting SDG-9 in low resource setting of developing economies

DR T RAMASAMI

SDG-9 recognises that the manufacturing activities in the world serve only about 14 per cent of the global population through employment creation. In fuller realisation of SDG-9 targets, the possible roles of research, technology and innovation in job creation in developing economies are duly acknowledged. Current policies adopted for Research, Technology and Innovations in high- and upper middle- income countries are resource intense and focused on global competitiveness. Such a model could well bypass the inclusive development targets of SDG-9. A revisit of policy perspectives for supporting industrial infrastructure based on innovations for development in low resource setting with a 'pro-poor agenda' is in order.

The inclusive developmental agenda of SDG-9 calls for attention to the purpose of innovations. An alternate model based on 'collaborative' in place of 'competitive' excellence seems relevant.

An analysis of resource intense research model for innovations: Currently, the research intensity of a nation state is measured in terms of the number of Full Time Equivalents (FTE) of R&D professionals and Gross Expenditure on R&D (GERD) as a percentage of Gross Domestic Product (GDP). The investments in GERD of the USA were $612 billion in 2020. For serving a population of 7.5 billion, global annual GERD needs to be in the range of $13.5 trillion on Purchase Power Parity terms at the rate of the USA per FTE. R&D investments at such scales are unsustainable and could well fail to serve the needs of nations in low resource setting. Resource intense innovation models tend to adopt public:private investments in the ratio of 1:2-3. The pandemic showcased the aftermath of healthcare as business and R&D for the private good. The innovation sector in the world is driven by competitive excellence and first mover advantages for investors with speed as premium in the marketplace. Many nations had to invest public funds in R&D to combat Covid. SDG-9 reveals the essentiality of people-centric priorities for R&D. The current innovation policies lead to multiplication of investments for competitive advantage. Consequently, costs of innovations from research from countries in Quadrant (Q4) in Figure 1 become high. The technology sector is market-driven. It is focused on market share. The current research, technology, and innovation system from Q4 could, at best, serve 30-40 per cent of the global market on account of the affordability challenge of low- and lower middle-income countries. People in many Q1 countries are either under- or unserved. For the serving technology needs of low- and lower middle-income countries, an alternate model for technology development is necessary.

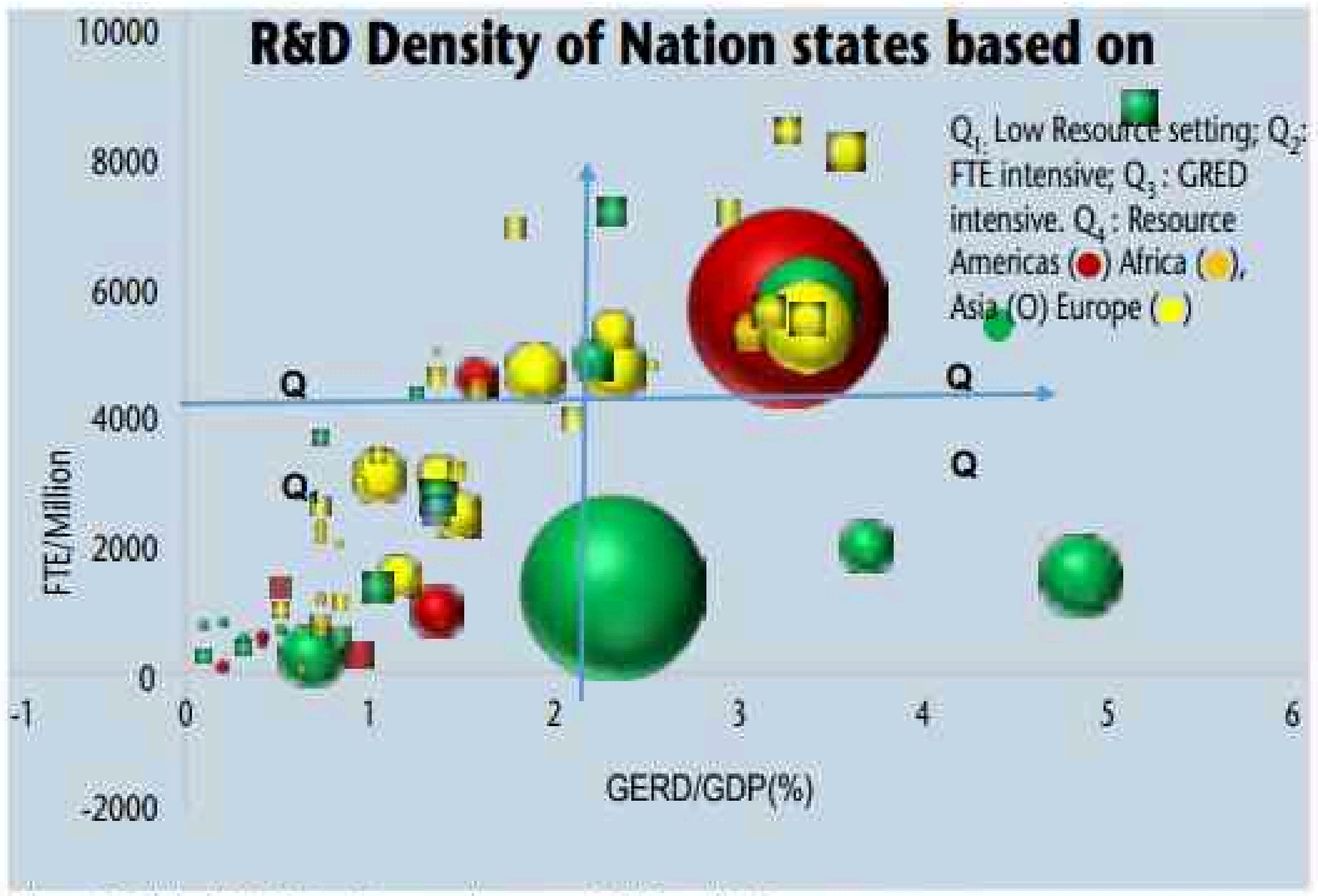


Figure 1: Global R&D intensity mapping as per GERD and FTE norms

An alternate model: A country like India is known to invest about $65 billion per year with annual investments per FTE matching those of many OECD countries. Her investments of GERD are about 90 per cent of the combined value of 35 low- and 55 lower middle-income countries. The affordability challenge for infrastructure, innovation and industry of these nations is large. Indian innovation and industrial infrastructure are able to serve the pro-poor agenda of many nations in a low resource setting. The ability of Indian vaccine manufacturing at the time of the pandemic for serving the needs of many nations has been showcased. The research innovation on a vaccine occurred in one country. Manufacturing based on that innovation was done in India. It is an excellent example of collaborative excellence as an alternate model.

Call for North-South-South collaboration: Technology and innovations developed through resource intense model in the North serve high- and upper middle-income economies. Several nations in the South are unable to create a resilient infrastructure, innovation ecosystem and industrial manufacturing capability based on resource-intense innovations. A country like India in the South with credible research, technology and innovation infrastructure could well partner in a triangular collaboration playing a part in optimisation and contextualisation of innovations from the North. A triangular collaboration model for serving the needs of under- and un-served markets of the world could be a win-win formula and serve SDG-9 in a low resource setting. Collaborative excellence as an innovation in policy for delivering goodness as a value of SDG-9 is needed. ◆

The author is Padma Bhushan; Former Secretary to the Government of India, Ministry of Science and Technology

Building a better tomorrow

What is a beautiful world? Well, there could be many definitions. Narayan Seva Sansthan believes in creating a world where the differently-abled and the needy are accepted into the mainstream and social life.

Established in 1985, Narayan Seva Sansthan is an NGO based in Udaipur, Rajasthan. Sansthan is expanding its service initiatives in order to reach out to more people who need help. It has a vision for growing service initiatives for the betterment of those who need it the most. In the next five years, 427850 surgeries will be done; more than 45,000 artificial limbs will be distributed and more and more branches will be opened in India and abroad for increasing our reach.

Sansthan has worked extensively for more than three decades to reach out and rehabilitate differently-abled people from the underprivileged segment. Narayan Seva Sansthan works with 480 branches in India and 89 branches abroad while focusing on alleviating disabilities and providing proper physical, social, and economic rehabilitation to the needy through well-planned and comprehensive programs in health, education, rehabilitation, corrective surgeries, and helping aid distribution making it the best charity organisation in India.

Narayan Seva Sansthan helps the differently able individuals realise their hopes, dreams, and ambitions and help those who need just a little extra support. So far, Narayan Seva Sansthan and its team have helped over 427850 individuals with free of cost corrective surgeries. Apart from corrective surgeries, it provides free education to children from tribal belts and vocational training programmes in vocational skills for differently-abled and needy adults. The organisation's other initiatives involve free-of-cost mass weddings and Divyang Talent shows that focus on the social rehabilitation of people in need.

NARAYAN SEVA SANSTHAN
SINCE 1985
Our Religion is Humanity

The aim is to create an inclusive society, where people with disabilities are accepted into the mainstream and social life. The organisation believes that every single person is special and talented and is just looking for a chance to excel.

Narayan Seva Sansthan was established by Gurudevji Shree Kailash "Manav" with the objective of helping the underprivileged and needy people. The journey began as a small social service initiative to distribute free food for the patients and attendants in government hospitals. The initiatives expanded to opening up a hospital for the treatment of differently abled, the treatment in our hospital is completely free of cost. There are many people who cannot afford their treatment and are forced to live with their disabilities as a result. Narayan Seva Sansthan makes sure that they get the treatment and the medication absolutely free of cost in their organisation. After the hospital was built, it was observed that apart from physical disabilities these people were also suffering with discrimination and poverty so measures were taken for social and economic rehabilitation of the people who came to hospital.

Padmashree Kailash Agarwal, Founder-Chairman, is the inspiration behind the humanitarian organisation. The Sansthan has flourished by his constant holding a record of more than 427850 corrective surgeries on the differently abled. He has always had a vision for the betterment of the masses we call minorities, and that's what drove him to build Narayan Seva Sansthan.

Prashant Agarwal, President, is a visionary philanthropist and a true altruist of humanity. Under his supervision Narayan Seva Sansthan is globally acclaimed as the largest rehabilitation institute for the differently abled. He has dedicated his life to the service of the deprived and differently abled, constantly going the extra mile for extending help to as many people as he can. The campaigns led by him have supported thousands of people in receiving corrective surgeries, aids & appliances, groceries and much more. Apart from above mentioned initiatives, we have an orphanage to help the children that come from remote and poverty-stricken areas.

SURGERY

A corrective surgery can largely improve the life of a differently-abled person, it will enable them to stop being dependent on others for meagre daily tasks. More than 427850 patients have successfully undergone corrective surgeries. All these people had congenital disabilities and have gotten over their disabilities with the right treatment, therapy and aids and appliances (as per their needs).

ARTIFICIAL LIMB

With the help of artificial limbs an amputee can lead a life like everyone else. Till date 18862 artificial limbs have been distributed to the amputees who had lost limbs in accidents.

FOOD

Not everyone in India has access to two-square meals a day. Sansthan serves more than 5000 people with healthy and nutritious food twice a day. The initiative is not only limited to the people who visit them. Their food truck travels to the places that are worst affected by hunger and unemployment in order to help the hungry.

EDUCATION

Education is so important and yet overlooked in many families because of the lack of resources. Narayan Children Academy was established in 2015 with a vision to deliver quality digital education to children who cannot afford it. So far 850 children have been provided with free education.

MASS WEDDING

A free-of-cost mass wedding helps the differently abled and needy get married without having to spend anything. These couples get a wedding with all the rituals, clothes, makeup, food arrangements for their families and the blessings of the kind donors. Sansthan has held 36 mass wedding ceremonies till date and 2130 couples have been married in these ceremonies so far.

AIDS & APPLIANCES

Aids and appliances are assistive devices such as wheelchairs, crutches and tricycles, etc. These devices help the differently abled people improve their mobility issues and live their life more comfortably.

GROCERY

Many families lost livelihoods during Covid-19 and many others lost their only earning member to Covid. Narayan Seva Sansthan distributed free grocery kits to these families suffering from poverty and hunger.

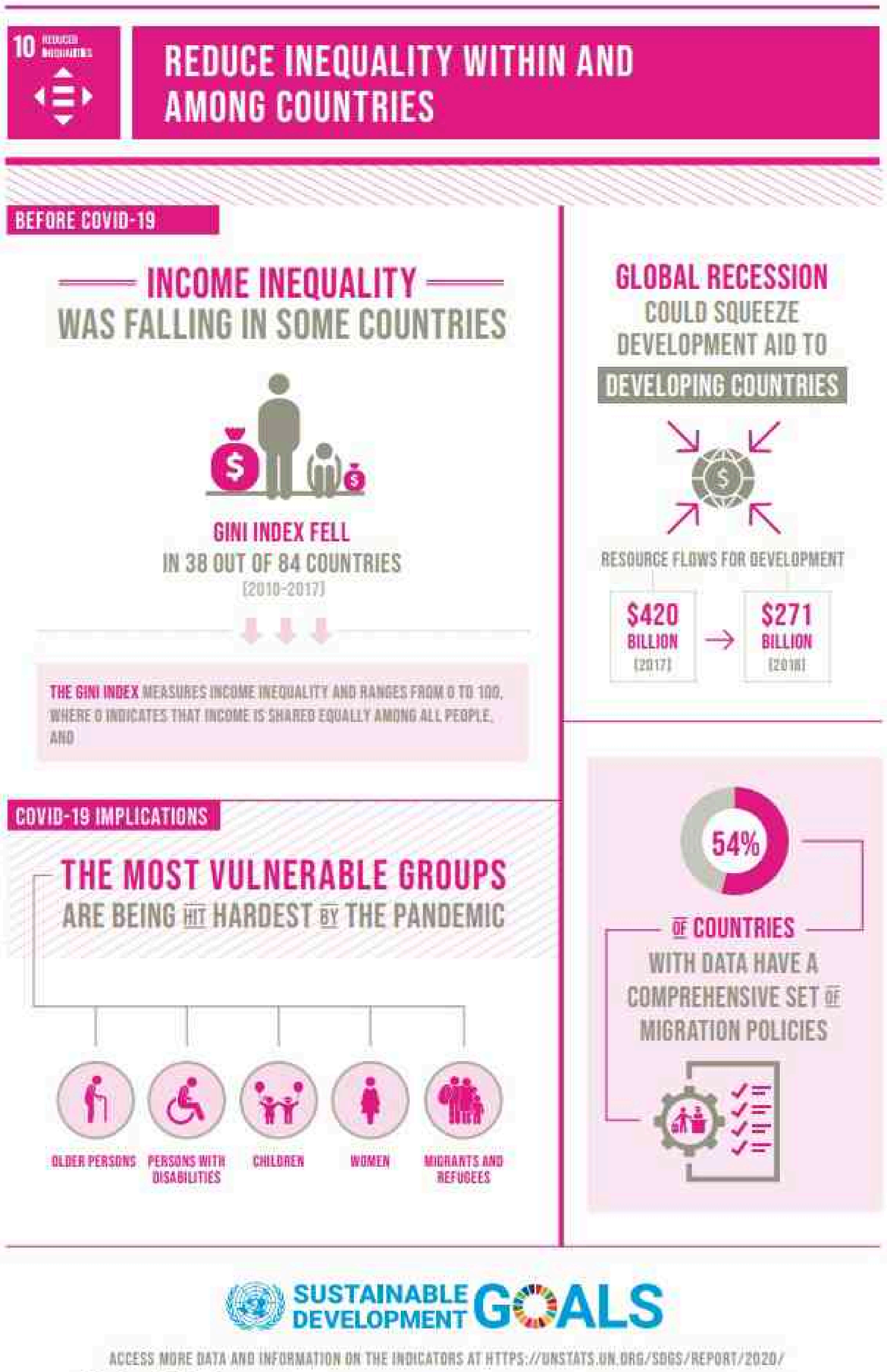
Narayan Seva Sansthan is coming up with a new project called the World of Humanity. Some key features of the project include 450-bed hospitals with modern amenities and facilities for differently-abled people; an 11-storey building of 2.44 lakh Sq Ft. constructed area; a modern facility to manufacture artificial limbs; vocational training centre for people with visual impairments, speech and/or hearing impairments; and a centre for research and development for specially-abled people.

The project is currently under construction and will be completed in the next two years.

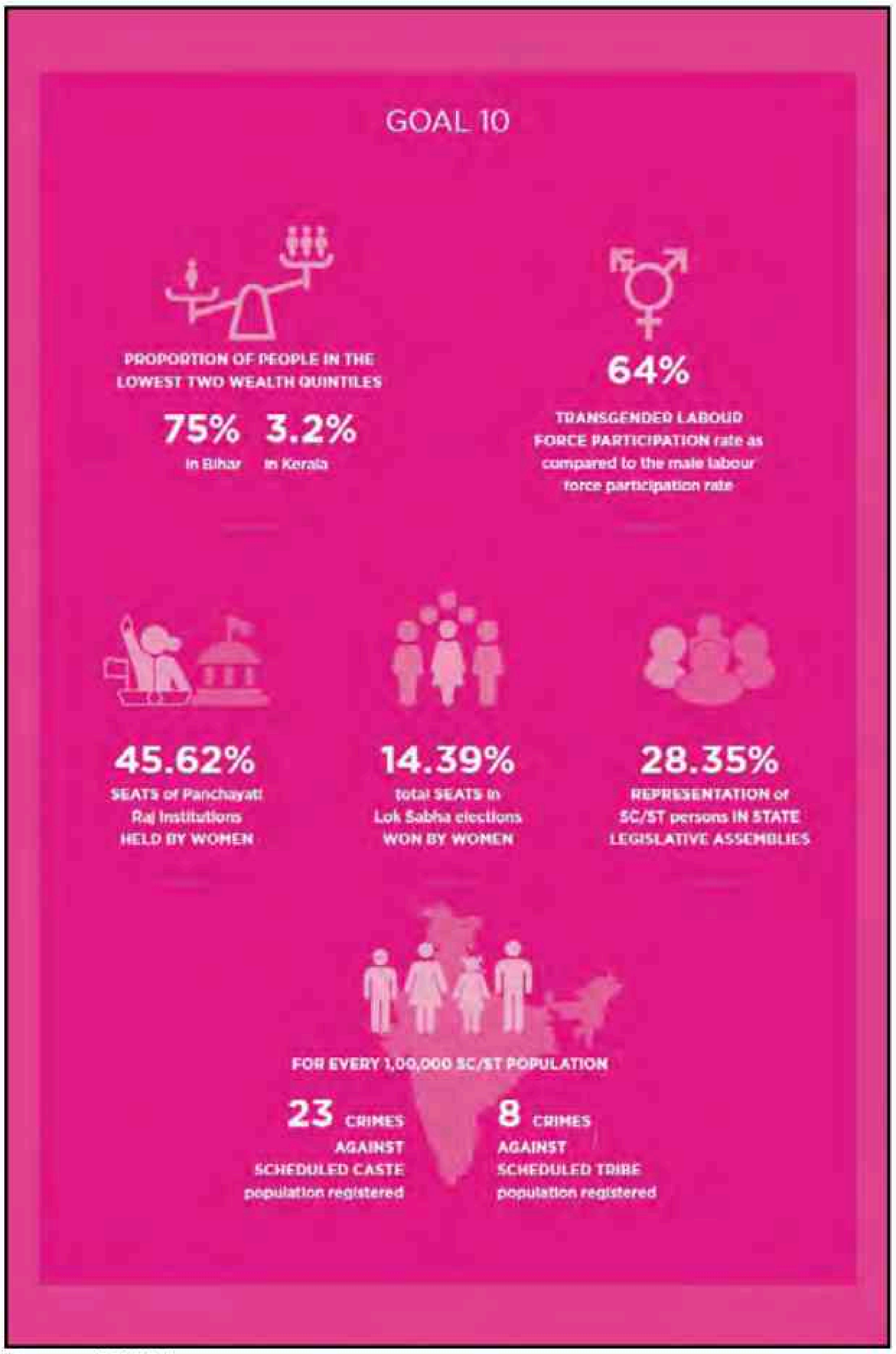
What Narayan Seva Sansthan has achieved all through these years has only been possible with the help of its supporters and patrons. Sansthan has also been immensely supported by its Corporate Social Responsibility partners such as Mitsubishi, IDBI Trustee, Indian Bank, State Bank of India and Rotary Club, etc.

Goal: Reduce inequality within and among countries

SANJAY BORADE


10 REDUCED INEQUALITIES
REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES
BEFORE COVID-19
INCOME INEQUALITY WAS FALLING IN SOME COUNTRIES
GINI INDEX FELL IN 38 OUT OF 84 COUNTRIES
(2010-2017)
THE GINI INDEX MEASURES INCOME INEQUALITY AND RANGES FROM 0 TO 100, WHERE 0 INDICATES THAT INCOME IS SHARED EQUALLY AMONG ALL PEOPLE, AND
GLOBAL RECESSION COULD SQUEEZE DEVELOPMENT AID TO DEVELOPING COUNTRIES
RESOURCE FLOWS FOR DEVELOPMENT
$420 BILLION (2017)
$271 BILLION (2018)
COVID-19 IMPLICATIONS
THE MOST VULNERABLE GROUPS ARE BEING HIT HARDEST BY THE PANDEMIC
OLDER PERSONS
PERSONS WITH DISABILITIES
CHILDREN
WOMEN
MIGRANTS AND REFUGEES
54%
OF COUNTRIES WITH DATA HAVE A COMPREHENSIVE SET OF MIGRATION POLICIES
SUSTAINABLE DEVELOPMENT GOALS
ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations


GOAL 10
PROPORTION OF PEOPLE IN THE LOWEST TWO WEALTH QUINTILES
75% in Bihar
3.2% in Kerala
64%
TRANSGENDER LABOUR FORCE PARTICIPATION rate as compared to the male labour force participation rate
45.62%
SEATS of Panchayati Raj Institutions HELD BY WOMEN
14.39%
total SEATS in Lok Sabha elections WON BY WOMEN
28.35%
REPRESENTATION of SC/ST persons IN STATE LEGISLATIVE ASSEMBLIES
FOR EVERY 1,00,000 SC/ST POPULATION
23 CRIMES AGAINST SCHEDULED CASTE population registered
8 CRIMES AGAINST SCHEDULED TRIBE population registered

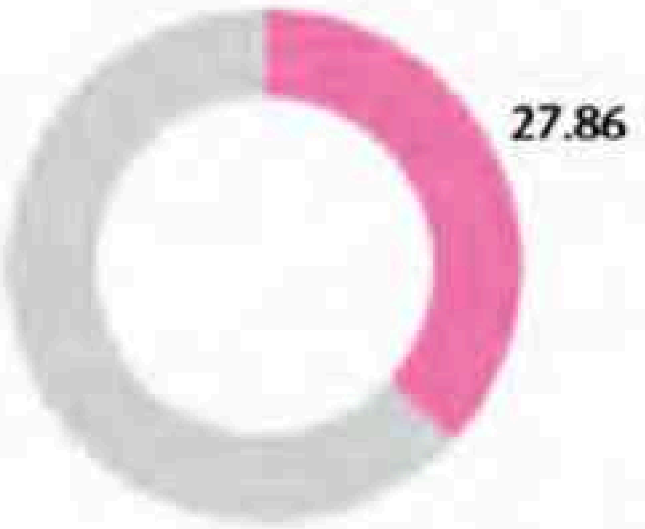
Source: NITI Aayog

10 REDUCED INEQUALITIES

Country Rank

118/165

Score



UN Dashboard Status

Major challenges ●

Trend

Information unavailable ●

Through SDG-10, United Nations calls for reducing inequalities in income as well as those based on age, gender, disability, race, ethnicity, origin, religion or economic status within a country. As of 2021, India has been ranked 118th globally with a low score of 27.86, owing to the significant challenges that persist. India's targets for SDG-10 include:

- Progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average.
- Empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.
- Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.
- Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality.
- Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations.
- Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions.
- Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies.
- Implement the principle of special and differential treatment for developing countries, in accordance with WTO agreements.
- Encourage official development assistance and financial flows, including foreign direct investment, to states where the need is greatest, in accordance with their national plans and programmes.
- By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent.

Gender

Gender is a crucial focus area when looking at Inequality. The Gender Parity Index of the Gross Enrollment shows us the ratio of the number of female students enrolled to the number of male students in each education level. This helps provide a clear picture of the changing face of gender inequality as historically, male students were more likely to go to school than females. However, data from the Ministry of Education shows that since 2012, the ratio gap between males and females has been closing. Data in 2020 showed equitable participation of girls in the School system, thus bridging the Gender Gaps.

This gender gap is also seen to be improving at the political level. Women's representation in the Lok Sabha has been less than 10 per cent for the first six decades (1951-2004) since Independence. As per records from the Lok Sabha Portal, an all-time low of 3.5 per cent was witnessed in 1977. However, this number has improved in recent years, with representation increasing consistently from 2009 and reaching an all-time high of 14.4 per cent of the total Lok Sabha seats in 2019.

GENDER PARITY INDEX OF GER

Level of education	2016-17	2017-18	2018-19	2019-20
Primary (I-V)	1.00	1.00	1.01	1.02
Upper Primary (VI-VIII)	1.03	1.02	1.02	1.02
Secondary (IX-X)	0.99	0.99	1.00	1.00
Higher Secondary (XI-XII)	1.00	1.01	1.03	1.04

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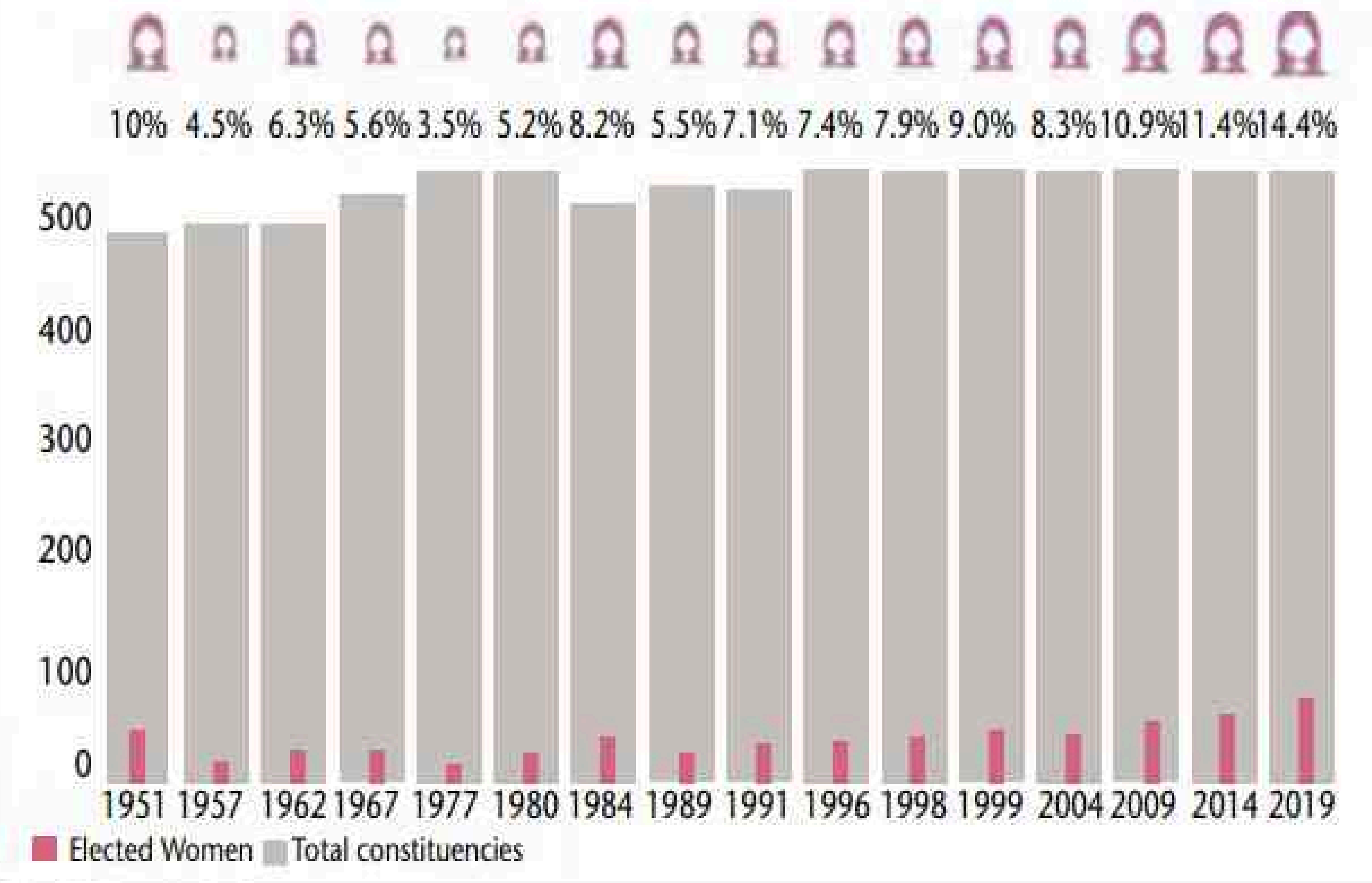
Number of constituencies



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Employment

Another factor that contributes to Inequality is the Gap in Employment. Rural India fares better in employment indicators when compared to Urban India, with the widest gap seen in the worker population ratio for 2020. As of 2019-20, while 53 per cent of the rural population was employed, only 46 per cent of the urban population was employed. Similarly, the unemployment rate for Rural India stands at 4 per cent, while that of Urban India is extremely high at 7 per cent.

Drinking Water

Availability of resources is a significant contributor to bridging Inequality, and the availability of clean and safe drinking water is a basic necessity for all households. Ministry of Statistics and Programme Implementation data conveys the availability of drinking water within households from 2012 to 2018 through National Sample Surveys. The data shows that the gap between facilities in urban and rural households has decreased significantly when assessing the availability of drinking water facilities within the household premises and exclusive access to the principal source of drinking water. Despite the gap closing, there is still a considerable percentage of the population deprived of these facilities. Till 2018, 19.3 per cent of urban households and 41.8 per cent of rural households did not have drinking water facilities within their household premises.

While household access is limited, the percentage of households having sufficient drinking water throughout the year and the percentage with improved principal sources of drinking water is consistently on the rise. As of 2018, 90.9 per cent of urban households and 87.6 per cent of rural households had sufficient drinking water throughout the year. On average 95 per cent of both households witnessed improved principal sources of drinking water.

ICT

Telecom and Internet Services are an integral part of leading a respectable life in modern society. Data from the Telecom Regulatory Authority of India (TRAI) showed a high disparity between the number of telephone subscribers and Internet users in urban vs rural areas. Despite consistent growth in tele density and internet density in rural areas, with number of users growing from 2015 to 2020, there is still a considerable gap that needs to be closed. As of 2020, 59 out of 100 people in India were telecom subscribers, but only 35 out of 100 people had internet access.

Remittance

A significant contributor to the nation's GDP and a factor that significantly helps reduce Inequality is the availability of remittances. Funds sent home by migrant workers, either cash or goods, are referred to as migrant remittance, and these transfers are susceptible to transactions costs. As per World Bank data, the average transaction cost hit an all-time high in 2013 but has since decreased consistently, reaching 5.41 per cent in 2020

Crime

Safety is an essential factor when looking at building equality in a nation. The National Crime Records Bureau (NCRB) data on crimes against disadvantaged socioeconomic groups showed that in 2019, crimes committed per 1 lakh population of SC and ST were 23 and 8, respectively. Further data on crime rates against disadvantaged socioeconomic groups showed that the higher their population, the higher the crime rate against them. In states like Uttar Pradesh, ~14 per cent of the population is made up of SC/STs, and they had the highest crime rate at 92, followed by Rajasthan (75 per cent), Madhya Pradesh (59 per cent), Telangana (47 per cent), and Bihar (46.8 per cent). West Bengal, however, proved to be an anomaly. Despite 8 per cent of India's SC/ST population living in the state, the crime rate against SC/STs is low at 2.5 per cent.

Population (In Lakh) India	
Scheduled Caste	2,014
Scheduled Tribe	1,043
Others	10,320
Total	**13,376**

Crime rate (Crimes/ lakh population) India	
Scheduled Caste	22.8
Scheduled Tribe	7.9
Others	354.5
Total	**385.5**

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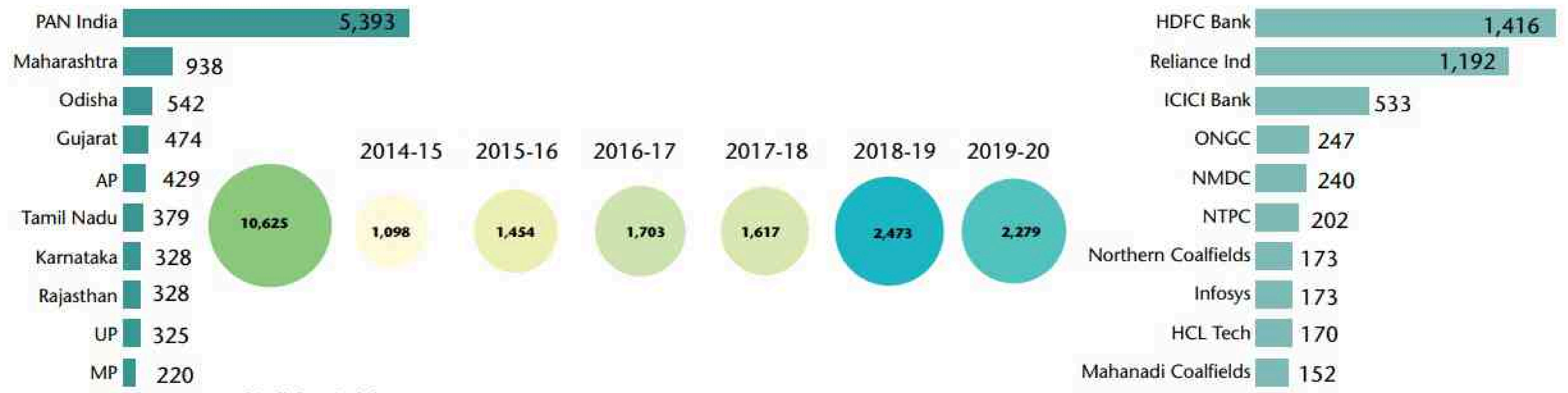
CORPORATE CONTRIBUTION

CSR Spend in Rural Development Projects and Socio-Economic Inequalities Sector (2014-20)



©IndiaDataInsights Notes: Data as updated on MCA portal as of March 2021. All amounts are cumulative and in (₹ crore)

Corporates contribute towards reducing Inequality through the funding of various CSR initiatives. However, the dissemination of CSR funds is very skewed across states. Data from Ministry of Corporate Affairs showed that states with low per capita GDP and higher populations below the poverty line received low scores on NITI Aayog's SDG index, and these also coincided with meagre per capita CSR investments per year.

Empowering and promoting social, economic, and political inclusion of all, irrespective of age, gender, disability, race, ethnicity, origin, religion or economic or other status has been the focus of Rural Development Projects supported through CSR. Corporates have funded a total of ₹10,625 crores (11 per cent) in the last 6 years towards this goal, with ₹2,279 crores spent in FY2020 alone.

HDFC Bank, Reliance Industries, ICICI Banks, ONGC and NMDC are the top 5 companies that spent more than ₹500 crores in this area, with most of these funds facilitating pan-India projects. Among the states, Maharashtra has received the maximum CSR funding, followed by Odisha, Gujarat, Andhra Pradesh, and Tamil Nadu.

Overall, India has a long way to go on the road to reducing inequalities, in both urban and rural areas. Improving Gender Parity is merely the first step in a series needed to raise our global ranking.

Getting back to business

Companies have the will and the power – and must use it urgently to create a better world that respects, values and supports people of all kinds

Dr. MUSIMBI KANYORO

The Covid-19 pandemic has swept the globe, leaving almost nothing untouched. At the United Nations Global Compact, the dire and unprecedented challenges prompted us to ask how the crisis has had an impact on those who are frequently excluded from fully participating in the workplace, like women and indigenous peoples or those with disabilities or a sexual orientation that makes them a target of discrimination.

Partnering with Accenture, we talked to more than 1,100 CEOs and 1,300 business practitioners from every continent – in 113 countries across 21 industries. Our findings are published in our new report "Gender Equality, Diversity and Inclusion Spotlight."

We found answers that bore out many of our biggest fears. While our research revealed businesses trying valiantly to get back on track, it also exposed failures that we call upon the global business community to address with urgency.

We learned that women in the workforce have suffered greater job losses than have their male counterparts as a direct consequence of the pandemic, reversing decades of progress.

Corporate efforts to equip workers with added skills, such as efforts to close the digital skills, were pinched by the pandemic, and CEOs told us they were forced to cut back on investments in local communities such as health initiatives or housing programmes. More than half of the female CEOs we surveyed said limited financial resources ranked among the biggest barriers preventing their implementation of sustainability strategies, and nearly half said the pandemic reduced their budgets for sustainability.

Small and mid-sized companies have been inspirational, especially in addressing the gender gap. Companies with less than $25 million in revenue are setting some of the most ambitious targets – four out of five are seeking greater than 30 per cent women's representation at the C-Suite and executive management levels.

But bigger businesses are falling behind. Only two-thirds of companies with more than $1 billion in annual revenues could make the claim to be seeking the same much-needed increase in women's representation. Also, business leaders from those small companies are moving more quickly than larger companies to make change happen – 85 per cent of the smallest companies are aiming to reach their women's representation goals by 2025. Again, only two-thirds of the bigger companies could make a similarly ambitious claim.

Female CEOs – more than men – are acknowledging just how much work needs to be done. More than half of the women CEOs we surveyed said they agreed the pandemic has highlighted the need to transition to more sustainable business models. Disappointingly, only a third of male CEOs made the same assertion. Also, more female CEOs than male CEOs told us they have adopted more ambitious sustainability milestones due to the pandemic.

Consideration for LGBTIQ+ communities is lagging significantly. Fewer than half the CEOs told us their company has expanded resources and protection efforts in the workplace. While business leaders expressed an understanding of the need to build diversity and inclusivity, they are failing to back that up with genuine accountability from the top. Only about four in ten companies around the world said they had taken action to ensure their leadership is accountable to D&I targets or even announced publicly that they have such targets in their organisation.

> **The global pandemic has dealt us all an unprecedented blow. But as we recover, we cannot let the setbacks we have experienced define our attitudes, progress and hopes for the future**

We call upon those who are failing to hold up their piece of the sky – big rich companies and male CEOs – to do so now. As one CEO told us, "It is during times of crisis that you see an organisation's true character. When things are tough you see whether an organisation walks the talk or if the rhetoric is just lip service."

The global pandemic has dealt us all an unprecedented blow. But as we recover, we cannot let the setbacks we have experienced define our attitudes, progress and hopes for the future. At the UNGC, we know that companies have the will and the power – and must use it urgently to create a better world that respects, values and supports people of all kinds. ◆

The author is Board Member, United Nations Global Compact; former President and CEO of the Global Fund for Women

A culture of collaboration

CSR is a signature of business vision and reputation

SHAMINI MURUGESH

The Dutch Corporate Governance Code hits the nail on the head in integrating corporate social responsibility with the purpose and business goals of an organisation.

'A company is a long-term alliance between the various stakeholders of the company,' it says. 'Stakeholders are groups and individuals who, directly or indirectly, influence – or are influenced by – the attainment of the company's objectives: employees, shareholders and other lenders, suppliers, customers, the public sector and civil society. The management board and the supervisory board have overall responsibility for weighing up these interests, generally with a view to ensuring the continuity of the company and its affiliated enterprise, as the company seeks to create long-term value for all stakeholders.'

Long-term value is the magic password, and this is accelerating the shift to purpose-driven business. In such a scenario, there is no other way to state this truth. Corporate social responsibility (CSR) priorities must be embedded in a company's purpose, DNA and culture.

Social accountability – the driver of trust and collaboration: The fundamental premise of social responsibility is that public consent is the raison d'etre of business, and so, it should positively contribute to society. CSR therefore, cannot remain as a siloed and single-team initiative. It has to course through the organisation's business vision, purpose and strategy – and leaders must bring in a culture of collaboration, trust and respect to embed it in the heart of their business models.

An organisation's purpose must centre around three key elements in serving a comprehensive stakeholder ecosystem. The first rests on delighting customers, the mainstay of any business. The second focuses on engaging and enabling employees to create value. The third centres around making financially, environmentally, socially ethical decisions that create a positive impact for every stakeholder. LEGO's 'Sustainable Materials Centre', dedicated to develop newer and sustainable raw materials and packaging materials, is a fine example of this.

As we move towards a more human-centred and socially responsible way of building and growing business, CSR can be an effective bridge to walk the talk in all three of them. Of the many areas that matter, this article touches on education and healthcare.

Investment in knowledge – a key imperative for the digital era: A recent survey showed that 70 per cent of companies in India plan to increase their CSR spends for education and skilling in 2022. Across industries, CSR activities in the area of education must reflect strategic and innovative thinking to enhance preparedness for the rapid developments of a digital era.

For example, WNS Cares Foundation (WCF) co-creates with schools, teachers, parents and WNS volunteers to educate, empower and enrich lesser privileged children and youth. Digital learning centres promote digital literacy, while mobile libraries bring learning to remote areas. Plus, the Foundation's CyberSmart portal provides a holistic cyber safety learning ecosystem to empower students, parents and teachers. Through gamified learning, this free-for-all platform imparts education using a unique blend of online and offline methodology.

Investment in human capital and knowledge will create the right environment for people to experience transformation and contribute to the development of the nation's economy. Organisations can leverage the new education policy to drive an entrepreneurial mindset in rural India and build the right ecosystems.

Revenues, profitability and market share are undoubtedly organisational performance metrics that matter. Yet, it needs to be remembered that all of these depend on consumers' inclination to accept and advocate a brand, and investors' conviction to invest in companies of all-round repute. The recent call of global investors (managing more than $130 trillion in assets) to more than 10,000 companies, asking them to provide environmental data to CDP, the non-profit disclosure platform, is a case in point.

CSR brings inclusive collaboration: More than ever before, an organisation's transparency of governance, ethical soundness of workplace practices and social accountability, are becoming critical decision points of stakeholder acceptance. CSR brings inclusive collaboration to all the above business strategies, and is much more than a mere mandate to fulfil. It calls for bold leadership and clarity of vision, both from corporates and governments. If governments wish to look at business as their partners in social and economic progress, they will need to free them from certain legal shackles, so that together, they can work towards a greater purpose. Corporations too, need to expand the understanding of shareholder value to a broader scale than just share prices. There is no value for shareholders if the world tomorrow is not a better place to live in than it is today. ◆

The author is Honorary Chief Mentor, WNS Cares Foundation and Creator, CyberSmart

Taking the community along...

Concern for society is an integral part of Shree Cement's business

PRASHANT BANGUR

India and 192 other countries adopted the 17 Sustainable Development Goals (SDGs) at the United Nations in 2015 to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda. The focus of these SDGs is to encourage various stakeholders to work towards and achieve a better and more sustainable future for all by 2030. However, the achievement of these goals may not be possible with government initiatives alone. It needs a high-level collaboration between the government, private sector and civil society.

India was one of the first few countries to mandate a Corporate Social Responsibility (CSR) law on corporates. Both SDGs and the Indian CSR law were formulated and implemented around the same time. The aim is to build a world which is stronger, less poor and certainly more sustainable. Shree Cement is engaged in building materials, which are used to build houses to provide shelters and to build roads and bridges. In brief, Shree Cement builds societies.

As a responsible corporate citizen, Shree Cement has included the 'concern for society' as an integral part of its business since inception. All its business goals foster holistic development and are undertaken with the over-arching objective of sharing its prosperity and growth with its stakeholders, especially communities around its operations.

Channelising rural development can assist with reducing distressed migration. An upgraded rural infrastructure helps create better living conditions and provides access to a better quality of life. Shree finds that building rural infrastructure is a key priority in the communities around its operations. It has therefore been regularly working on building roads, health, sanitation and education facilities, community halls and other infrastructure assets. These projects are closely linked with the SDGs of clean water and sanitation, good health and well-being, and sustainable communities.

Education is essential for the progress of an individual, a community and country. It is a fundamental right and is also directly linked with the economic development of the country. In the rural parts of the country where the company operates, large numbers of children – more girls than boys – never go to school. If they do attend, they often drop out due to poverty, family problems or other social factors. To overcome this challenge, Shree runs comprehensive programmes which range from special education centres known as 'Shree ki Pathshala' to computer literacy centres. It also helps needy students by providing teacher support for board exams. Many more such interventions at different sites are making a difference in society. These programmes reflect the spirit of SDG on inclusive, equitable and quality education and promote lifelong learning opportunities for all.

Healthcare is a major concern in many communities. Specially post pandemic, everyone has realised that it is not an issue which can be handled alone by the government. On this front, Shree focuses on providing primary healthcare facilities to its nearby communities through its dedicated programs and resources like 24x7 healthcare centres, mobile medical vans, etc. It also has a programme dedicated to the health and well-being of pregnant women, known as 'Mamta' which covers the entire cycle from pregnancy to delivery of the child and neonatal care.

> **Shree Cement has a programme dedicated to the health and well-being of pregnant women, known as 'Mamta' which covers the entire cycle from pregnancy to delivery of the child and neonatal care**

Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world. Thus, women empowerment, a key aspect of societal development and progress, finds a special place in Shree's interventions. Skill development trainings, financial help, vocational programs and access to financial resources are key interventions which are aimed at raising the economic status of women in their communities and making them equal partners in developing society. The SDG on achieving gender equality and empowering women and girls is interlinked with these programmes.

There has been a paradigm shift in the approach of corporate India. They consider themselves equal contributors and partners to the government in the overall development agenda. Shree Cement's journey in this area has always been to take the prosperity and well-being of all its stakeholders along and share its growth with them for overall development. ◆

The author is Joint Managing Director, Shree Cement Limited

Take everyone along

A little over 325 million Indians are from marginalised communities and their participation in the formal economy is almost non-existent

TCS

'Bridging' the rural-urban divide

BridgeIT has helped the rural youth to become digital entrepreneurs

Since 2014, TCS' BridgeIT programme has been addressing the social inequalities by empowering marginalised youth to become rural entrepreneurs and civic leaders in their villages. Partnering with local NGOs, TCS has been providing them skills, mentoring, technology, tools and resources, to become digital last-mile-connectors, delivering essential services targeted towards solving the most critical challenges in education, adult literacy, unemployment, social discrimination. This facilitates a 'bridging' of access and opportunities between youth in rural, underserved areas and those in urban areas.

TCS collaborates with trusted NGOs to implement this programme. The partners are Humana People to People India (HPPI), National Confederation of Dalit & Adivasi Organisations (NACDAOR) and Development Focus. BridgeIT forms 'livelihood committees', which include members from the panchayat, the local village governing body, who help select the participants of the programme.

TCS provides the initial financial investments, infrastructure, mentoring and peer networking, designed to ensure that entrepreneurs can kick-start their journey. The programme was first implemented in 2014 in six of the most underserved villages in Jhansi district. It expanded each year with new cohorts of entrepreneurs, ultimately growing to 10 states. The program is now being implemented with the help of three partner organisations. Till date, BridgeIT has been implemented in 10 states and 30 districts. It has enabled 466 entrepreneurs and benefitted over 415,000 people.

In its journey, TCS has come across challenges such as changing the mindset of the rural youth, which is towards taking up a job; convincing the youth to take up risks; encouraging the young women, who are discouraged by their families from joining the programme.

Livelihood option India has an unemployment rate of 5.3 per cent in rural India and ~250 million of the population of India come from disadvantaged and marginalised communities as per Census 2011. TCS' BridgeIT program has given them a livelihood option. Earlier, the villagers had to go till the block level to get many of the basic services, which now they have started getting at their doorstep.

Digital skills imparted to the Dalit/tribal youth are passed on to the rural communities. Access to technology allows them to emerge as successful digital entrepreneurs.

As much as 95 per cent of the youth indicated increased income and improved standard of living, recording 3x earnings in comparison to other casual wage earners in rural India. About 60 per cent of them are able to break social and gender barriers and bring in transformational change in the communities. Also, 92 per cent of these women and men indicated higher self-esteem and respect gained at home and in the community.

Average income of the 20 top entrepreneurs after two years with the programme has been ₹25,640, with the best performing entrepreneur touching revenue up to ₹4 lakh. The average income of the entrepreneurs who joined the programme in mid-2020 is ₹37,590 (in nine months), while the aggregate earnings of the entrepreneurs till date is ₹5.45 crore.

The aim of the programme has now been raised to achieve higher societal outcomes against target groups and touch 1 million entrepreneurs by 2030. It is looking at enhancing its services in rural entrepreneurship in the fields of agriculture, education, healthcare, logistics, financial and legal services. From the current 30 districts, the programme plans to be replicated in over 100 aspirational and underserved districts in India.

TCS seeks to deepen the reach in every district to reach one million entrepreneurs by 2030. The programme is provided free of cost and the company does not envisage to generate any money in the name of the program. It is sustained by the CSR funds of the company.

The empowered youth of the BridgeIT programme would supplement academic inputs to primary and middle government school children through Computer Aided Learning (CAL) modules. It also plans to improve adult literacy through its Computer Based Functional Literacy (CBFL) module. The digital entrepreneurs now run Common Service Centres to provide 160+ IT enabled services to the villagers. The income earned by these entrepreneurs has seen a steady increase, going as high as $5,714/month (₹400,000/month). As much as 77.4 per cent of the entrepreneurs have moved into the band of $2/day and above, with 2.5 per cent of them earning greater than $32/day. Many BridgeIT entrepreneurs now provide employment to other disadvantaged youth in rural India.

CAL in schools and adult literacy programme in the communities helped in giving the villagers credibility as entrepreneurs. The income when they started their journey was on an average ₹8,000-10,000 annually. After two years in the programme, this has almost doubled for many of them. The entrepreneurs are able to start earning a decent income in 7-8 months. ◆

HSBC INDIA

Financial & digital inclusion

HSBC has a robust community investment (CI) portfolio working in India, with over 105 direct non-profit partners, on projects across 25 states and three Union Territories. HSBC's key strategic focus areas are 'future skills' and 'environmental sustainability'.

When it comes to financial and digital inclusion, the five key differentiators across the projects supported by HSBC, are: Partnerships – in technical, knowledge and execution, to maximise outreach; Cross-cutting vulnerabilities, which benefit women and youth groups across poor, marginalised groups; Technology, which laid emphasis on technological solutions to enhance financial inclusion; Holistic models relating to financial, digital, skill and business development, with relevant linkages; and Geographic outreach covering rural, semi-urban and urban sections of the population.

One of HSBC's initiatives supported building digital and financial capabilities, facilitating financial inclusion. A multi-year project (2017-21) with Sa-Dhan & M-FIN, it had the objective of developing a digital ecosystem through imparting training on digital literacy to microfinance institutions and clients, as also providing cost-effective and scalable options to partner microfinance institutions (MFIs) for making loan disbursements and repayments from their clients through digital methods.

The project worked with 20 MFIs, across 10 states, to train over 57,800 people, which included MFI field staff and clients. As the project nears completion, digital disbursements by the partner MFIs today stands at about 100 per cent. Repayments in digital mode are growing fast too and cover about 60 per cent of the total (driven primarily by MFIs in urban areas).

Developing the micro-finance sector Sa-Dhan, the largest and oldest association of community development finance institutions in India, has been recognised by the Reserve Bank of India as a self-regulatory organisation for non-banking finance companies and micro finance institutions. M-FIN (an industry association) and SRO work towards the robust development of the micro-finance sector.

Jan Dhan Yojana, Aadhaar and Mobile (JAM) trinity is an ecosystem that helps in improving access to finance for unbanked population by building digital capacities and capabilities. And MFIs provide the link between the three, for developing ecosystem by using technology for better financial inclusion. Though this has provided impetus to digital ecosystem, there were challenges faced for its activation.

The project in partnership with Sa-Dhan is aimed at solving this issue through a set of specific activities, which included Consultation, to understand the scope, opportunities and challenges of digitisation of MFIs; Content – modules by IFMR LEAD; Manuals available on technologies such as NPCI, BHIM, mobile wallets, etc; Training – workshop for clients, non-clients and last-mile agents. Client and agent test on workshop day to capture digital awareness levels; and Collaborations – Gram Bikash Kendra (village level formal development collectives) for mobilisation and other programmatic support and Paytm for operationalising banking outlets.

As a part of the project, emphasis was given on building digital literacy of employees of the MFIs and clients, with blended models of workshops, module, videos, etc. The project focuses on improving digital awareness and stand on ground support that bridges the prevalent gaps and enables the beneficiaries to avail host of benefits and further ameliorate their socio-economic development.

Over the years, while micro-finance lending has moved towards non-cash disbursements such as pre-paid cards, bank transfers, etc, in predominantly urban areas, it has been a challenge in semi-urban and rural India. On the repayment side, cash is almost ubiquitous.

Digital financial series (DFS), scale of micro-credit lending, emerging risks associated with cash handling and evolution of wider ecosystem around DFS among others, etc, are creating the required impetus that is driving non-cash transactions models at a customer level. To accelerate and scale-up DFS in micro-lending, there was a critical need for an industry-level effort to incubate and nurture a few models. And, the HSBC-MFIN project has worked with 16 MFIs to focus on educating their customers to use DFS in a safe and secure environment, as well as bring down the cost of DFS. ◆

MINDTREE

Lending a helping hand

Mindtree, with its NGO partner, Association of People with Disabilities (APD), has been going about its social service activities, to provide continuity in education and physiotherapy to the children with disabilities from EWS (economically weaker sections) families. Its project – started on 1 July 2021 and is expected to end in 31 March 2022 – is active in Chitradurga district in Karnataka. The project benefits some 150 children with special needs (CwSN), aged 4-18 years.

The first phase of Mindtree's intervention through APD to help rural children with disabilities started in 2014. It reached 1,488 children with disabilities from Bijapur. Mindtree built accessible toilets and accessible rails in their homes and arranged transport for their daily commute to the school. The team identified five model schools and built better accessibility, physiotherapy rooms and toilets in these institutions. It also arranged for special teachers to guide these children and provided livelihood opportunities to their parents. With APD and Sparsh, Mindtree brought some of these children from Bijapur to Bengaluru and facilitated corrective surgeries and post-surgical therapies. The second phase of the project's intervention through APD started in June 2021. It is now focussed on providing continuity in education and physiotherapy.

According to a National Survey, out of 76,825 children with disabilities in the 6-13 age group surveyed in Karnataka, 18,106 (23 per cent) were out of school. During the pandemic, these CwSNs were deprived of rehabilitation and education, breaking the continuity.

Mindtree-APD project benefits children with special needs

Creating equal education opportunities Chitradurga has been named by the government of India as one of the 250 most backward districts in the country. And so, this project addressed the educational needs 150 CwSN in Chitradurga district with disabilities related to loco-motor skills, speech and hearing impairment, low vision, learning disability, cerebral palsy and other multiple disabilities. The identified CwSN are assessed by APD, who then develops 'individual education plan' (IEP) and 'individual rehabilitation plan' (IRP) for each child.

The overall goal of this project is to create equal education opportunities for 150 CwSN in Chitradurga, over three years, and to enable them to access quality inclusive education in schools. The specific objectives to achieve this goal include ensuring retention of CwSN in schools; facilitating holistic growth of children to enable them to achieve their fullest potential in life; and ensuring improved functional ability through rehabilitation with assistive devices, therapy and medical intervention.

The project sees to it that CwSN gain adequate training on self-defence mechanisms to help them become more confident about themselves. It also ensures that CwSN (of appropriate age group) got proper career guidance, so that they could build successful careers. It also empowers parents by creating awareness on issues related to disability and helping them access the social security schemes available to them. Parents' self-help groups are formed to promote sustainability. The teachers too are trained in inclusive education, curriculum adaptation and teaching learning methods, while a selected group of mothers are prepared to become community role models and interventionists.

The project is aimed at providing rehabilitation services and online education during pandemics and in-person rehabilitation services at other times. Some 150 CwSN have accessed quality education and rehabilitation in an inclusive environment in the first year of the project roll out.

The APD education department came up with tele-education service guidelines 2021 in May 2020 for enabling teachers to provide education using tele/virtual technology. Tele-education services have been put to optimal use now by all stakeholders and will continue as a medium of education even beyond the pandemic.

At Mindtree, the guiding force of its CSR charter is #BeTheGiveR. It inspires individuals and organisations to do more towards the uplift of the underprivileged. ◆

GOSPORTS FOUNDATION

Equal opportunities for all

Through extensive work towards creating sporting champions, empowering individuals and communities and contributing to building the nation through sport, GoSports Foundation, has striven to align its work and activities to the United Nations' Sustainable Development Goals. One such goal that the foundation greatly contributes towards, through diverse athlete scholarship and knowledge building programmes, is Goal 10 – Reduced Inequalities.

Through various programmes, such as the Rahul Dravid Athlete Mentorship Programme, Para Champions Programme, GoSports Long-term Athlete Development Programme and the Stars of Tomorrow Programme, the foundation has developed a keen focus and ensured that the objectives and outcomes of the programmes would reduce inequalities on various fronts. Some of the targets of Reduced Inequalities include ensuring equal opportunity and reducing inequalities of outcome and empowering and promoting the social, economic and political inclusion of all, which GoSports Foundation contributes towards.

Until 2012, a large part of whatever India could achieve at the Paralympics was down to the athletes' efforts, with some support from the government. However, in 2015, the Para Champions Programme was launched with the support of IndusInd Bank, which came on board as principal partners and Sony Pictures Networks India, which became associate partners to the programme sometime later. The aim of the endeavour was to bring structure and vision to India's 'paralympic' movement, promote sport as a medium of self-empowerment and raise awareness of prevalent disability conditions in our society.

The Para Champions Programme was the first of its kind to support emerging and elite para-athletes across India. Through the programme, athletes have become empowered through sport to become role models and instil inspirations. It has contributed to raising awareness about pertinent matters related to persons with disabilities. The programme has supported over 30 Paralympians and seven Paralympics medallists as well, contributing towards building the livelihood of persons with disabilities through sport and striving to create equal opportunities for persons with disabilities.

Raising awareness For example, athletes such as para-badminton player Suhas Yathiraj and para-discus thrower Ekta Bhyan are prime examples of persons with disabilities using sports to better their livelihood, raise awareness and increase opportunities for persons with disabilities, by being the voices of the community. Yathiraj, an IAS officer, who won a silver medal at the Paralympics in Tokyo in 2021, is today the district magistrate of Gautham Budh Nagar in Uttar Pradesh, playing a pivotal role in guiding the community forward. Also, Ekta Bhyan has become a role model to so many in the community, who are disabled, and has paved the way for more individuals like her to take up sport as a medium for self-empowerment and stable livelihood.

Through these and other programmes, multiple athletes from varied cultures and socio-economic backgrounds and different age groups, are given a platform to enable themselves to achieve sporting excellence. And they have empowered themselves, thereby striving towards equality in the country. An important aspect of the foundation's programme is to support women empowerment through sport and provide a platform for women from various backgrounds to have equal opportunities in Indian sport. Athletes like fencer Bhavani Devi and Indian Hockey captain Rani Rampal, through the support of the foundation at different stages, have risen past humble backgrounds and diverse challenges to become bread-winners for their families, as also sources of inspiration for young girls across India, contributing to the reduction of inequalities in sport for women.

GoSports Foundation holds the alignment of its outcomes and objectives to the Sustainable Development Goals as an important aim, with the foundation contributing to Goal 10: Reduced Inequalities, directly and indirectly through the athlete scholarships and knowledge building programmes. Promoting equal opportunities for all, increasing and bettering livelihood opportunities through sport, and striving to create a more diverse and inclusive country, with sport as a key pillar, are some of the key objectives of the foundation. ◆

ALLCARGO LOGISTICS

Catch them young

The youth have long been considered a country's greatest asset. India is fortunate to have a bulk of its population in the younger age categories. To leverage the potential of this young demographic, it is crucial that they are taught the skills needed to transform their own lives and that of the country. However, the wide skill gap is such that their power and capabilities cannot be fully utilised and India is yet to reap the benefits of this demographic dividend.

Allcargo Logistics had launched a multi-skill development centre, in collaboration with CIDCO and JNPT at Bokadvira in Uran, Maharashtra, in March 2019. The centre operates under the Union government's Ministry of Skill Development & Entrepreneurship (MSDE).

Allcargo took a decision to tap local talent, while setting up the skilling centre, which came as a boon to the underprivileged youth in the vicinity, as the training gives them a chance to better their employability. And it is not just individuals who are gaining, but the entire families. This is in alignment with

सिडको, जे एन पी टी, ऑलकार्गो कौशल्य विकास केंद्र
Allcargo trains the underprivileged youth to better their employability

SDGs-8 (decent work and economic growth) and 10 (reduced inequalities). Over 1,000 students have completed training at the centre and received assistance for placements.

Allcargo utilises its expertise and industry knowledge to impart training to the students of the centre. Post-training, the students can take up opportunities, as consignment booking assistants, consignment tracking executives, inventory clerks, documentation assistants and warehouse pickers/packers and also improve their skill proficiencies in warehousing documentation, booking, loading, unloading, tracking, MIS, picking and packing processes. This initiative, therefore, makes skilled labour available to the industry, which is the need of the hour. Trainers at the centre are Logistics Skill Council (LSC) TOT certified.

The success of this centre can be replicated to benefit the industry and nation at two levels – one by recruiting these trained professionals to enhance the talent pool of the logistics industry and, secondly, by setting up similar centres not just for logistics, but even other industries.

In May 2020, as an initiative of JNPT, the skill development centre was also converted into a Covid-19 care centre, with 120 beds and an ambulance service. Through the centre, Allcargo serves the dual purpose of continuing its effort to contribute to social welfare and community development by giving underprivileged youth hope for better employability and a better life. It has also brought in skilled personnel across diverse supply chain verticals to bridge the industry's skill gap.

Its CSR arm Avashya Foundation, with its partner NGOs, also implements various other education and training-related initiatives, across different locations in the country. Together with the centre, they contribute to enriching the youth. ◆

GRAM VAANI

Voice of the voiceless

In the past one decade, 3 million lives with over 150 partners spanning sectors in six countries have used social tech enterprise Gram Vaani's innovative media platforms. 'Mobile Vaani' (MV) is Gram Vaani's answer to building a free social media platform, equivalent to Twitter for rural areas, offering a rich voice stack – accessible using even a basic feature phone and other web or app-based channels. It aims to reverse the flow of information by providing voice-based, multi-channel, interactive media services to underserved populations in developing regions. Gram Vaani's tech platforms and programme innovations have been used to achieving the UN Sustainable Development Goals, spanning health & well-being, quality education, gender equality, decent work & economic growth and reduced inequalities.

During the Covid-19 pandemic, Gram Vaani repurposed its platforms and collaborated with various organisations to facilitate emergency response through health information and link those in need of food, shelter, transportation and healthcare, or those facing challenges in access to critical services, touching the lives of over 1 million people across underserved communities. Its next challenge lies in leveraging its platforms and building local community champions with the objective of improving climate change resilience in the grassroots.

Over two-thirds of the Indian population is dependent on the primary sector – rain-fed agriculture, cattle rearing, fishing and forests-based minor production – at a small-scale or subsistence level. In the wake of climate change, these livelihoods have become unpredictable and uncertain. Socially and geographically disadvantaged groups are particularly negatively affected by climate change and climate-related hazards.

GRAM VAANI
TECHNOLOGY- MEDIA - DEVELOPMENT

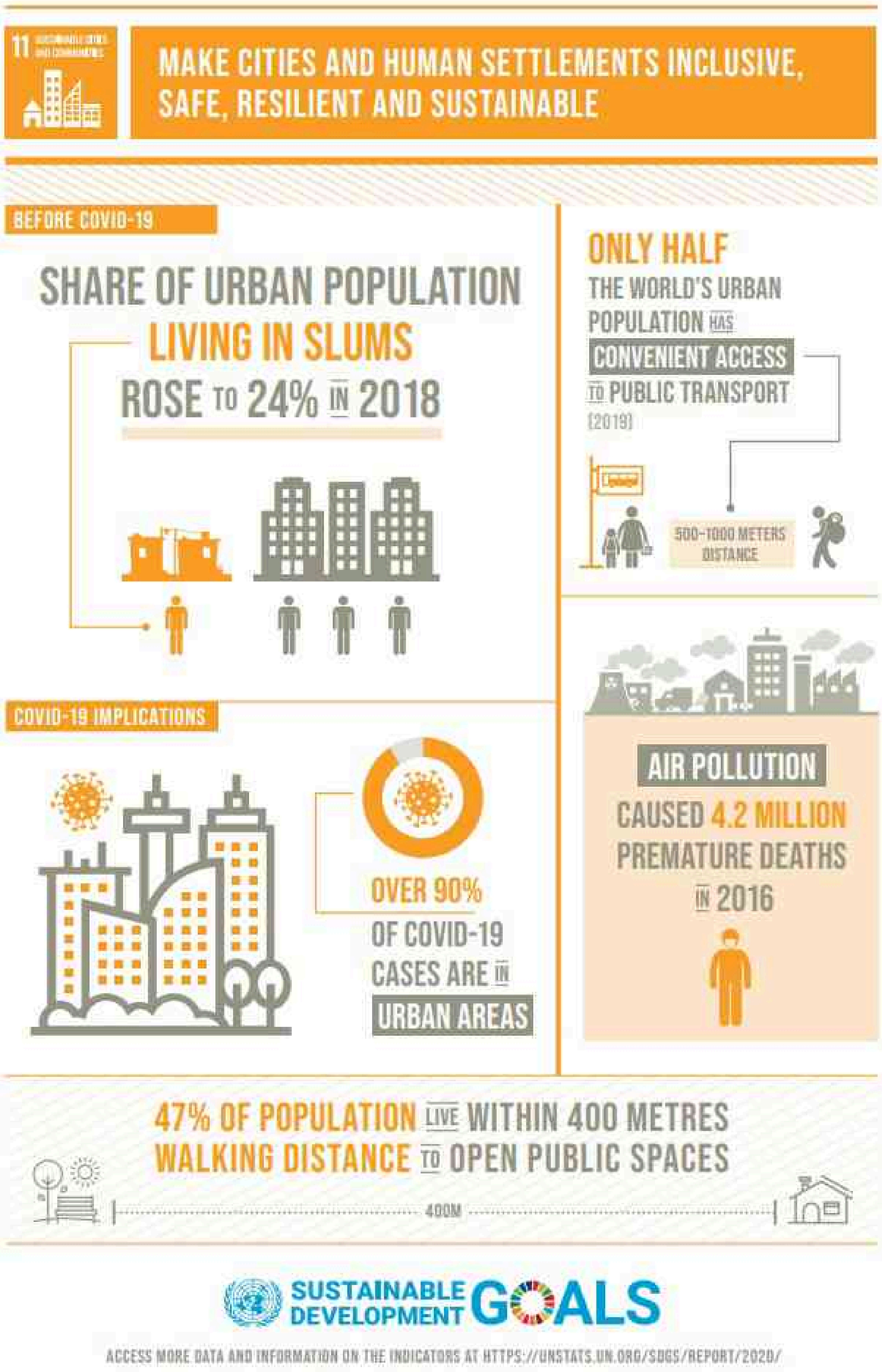
Gram Vaani helps people build communities through simple mobile phones

Access to news and information MV provides an outlet for community members in digitally dark areas to access local news and information about relevant schemes and services to help improve their lives. MV engages sections such as farmers, herdsmen, fishermen and other individuals, who rely on natural resources and factors for livelihoods, across 20+ states, in vernacular and voice-first tech solutions. Over 20 per cent listeners are women and they report high ease of using the MV platform, even when using a smartphone or when they're using a phone shared with a family member. People, whose voices are often unheard, can share their opinions, hear from each other and build communities through simple mobile phones. SDG achievement is possible only through more collaborative & participatory approaches that the communities adopt.

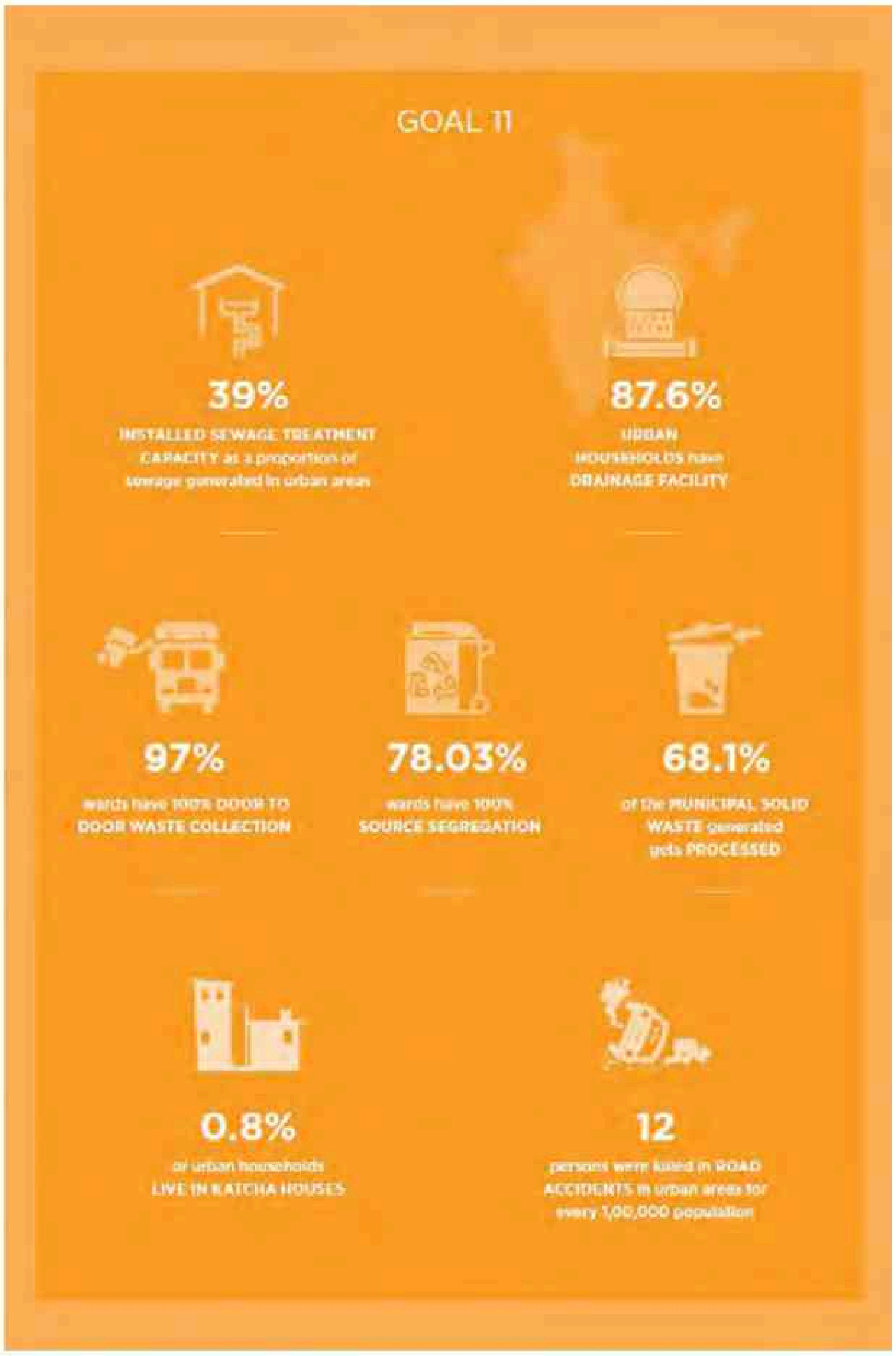
Gram Vaani, registered as Onion-Dev Technologies, provides voice-based (multi-channel accessible) interactive media services to underserved populations in developing regions, with a mission to reverse the flow of information.

For MV, the company has built an intelligent interactive voice response system that allows people to call a number and leave a message about their community or listen to messages left by others. Its flagship deployments, operating in over 25+ districts across multiple states, service over 100,000 monthly unique users. ◆

Goal: Make cities and human settlements inclusive, safe, resilient and sustainable


11 SUSTAINABLE CITIES AND COMMUNITIES
MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE
BEFORE COVID-19
SHARE OF URBAN POPULATION LIVING IN SLUMS ROSE TO 24% IN 2018
ONLY HALF THE WORLD'S URBAN POPULATION HAS CONVENIENT ACCESS TO PUBLIC TRANSPORT (2019)
500-1000 METERS DISTANCE
COVID-19 IMPLICATIONS
OVER 90% OF COVID-19 CASES ARE IN URBAN AREAS
AIR POLLUTION CAUSED 4.2 MILLION PREMATURE DEATHS IN 2016
47% OF POPULATION LIVE WITHIN 400 METRES WALKING DISTANCE TO OPEN PUBLIC SPACES
400M
SUSTAINABLE DEVELOPMENT GOALS
ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



Source: NITI Aayog

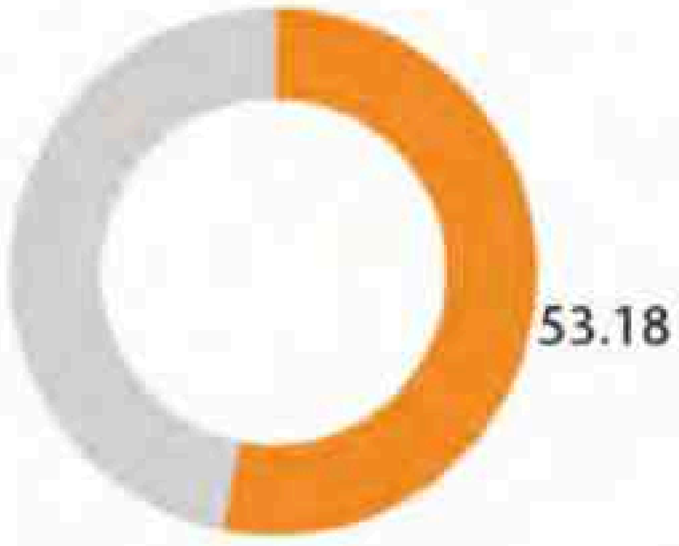
SUSTAINABLE CITIES & COMMUNITIES
SNAPSHOT

11 SUSTAINABLE CITIES AND COMMUNITIES

Country Rank

135/165

Score



UN Dashboard Status

Major challenges ●

Trend

Stagnating →

Sustainable Cities and Communities are the building blocks of a strong society. SDG-11 looks at sustainable cities in the following ways (for which we have data in India):

- Safe and affordable housing
- Reduction of the environmental impacts of cities (inclusive of sustainable waste management)
- Reduction of the adverse effects of natural disasters

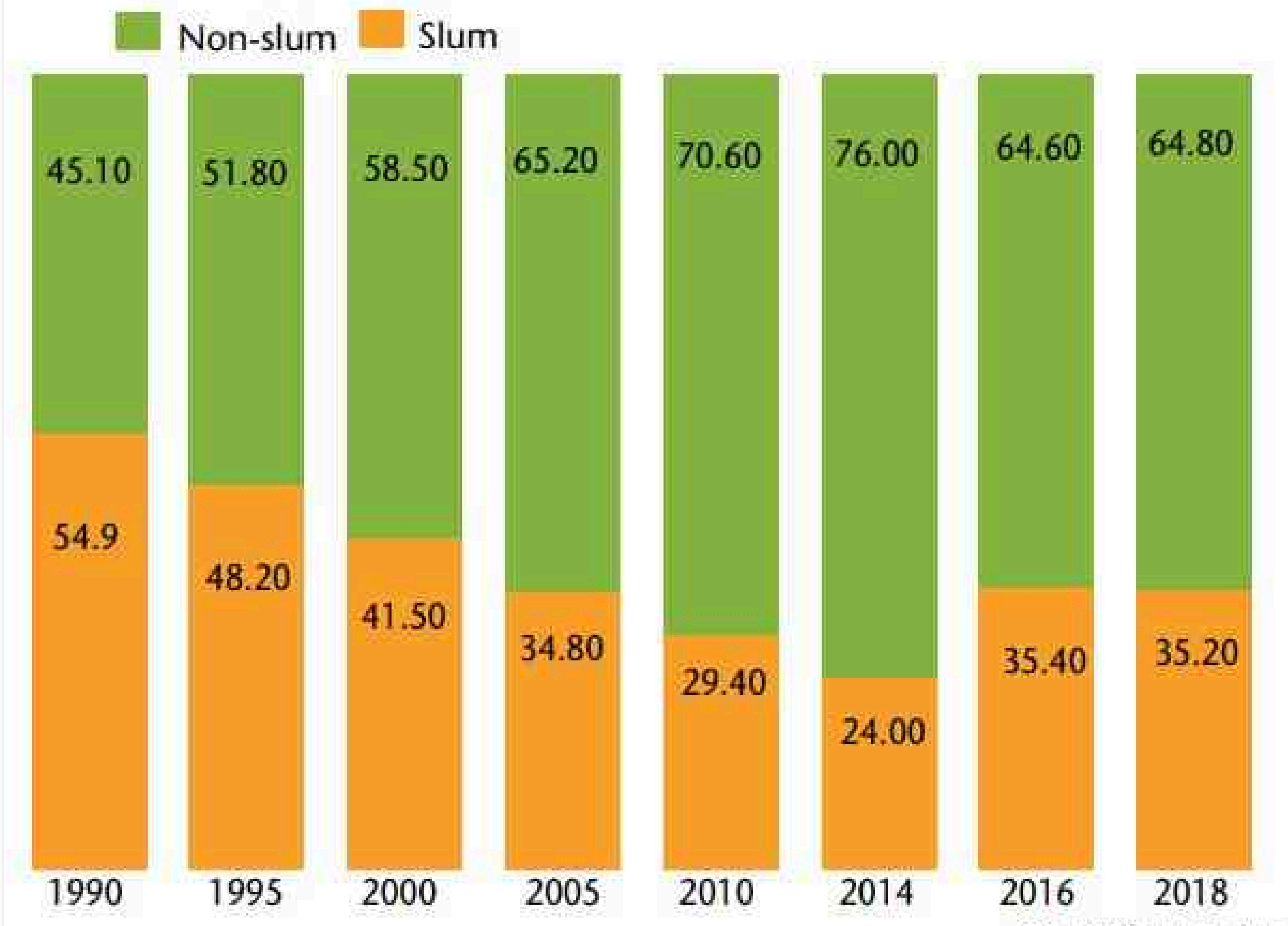
While the first two categories are specific to urban areas for this SDG, the third refers to the general adoption of disaster preparedness methods, which thereby makes communities sustainable. India has listed the following key targets surrounding this goal to be achieved by 2030:

- Ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.
- Provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
- Enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.
- Strengthen efforts to protect and safeguard the world's cultural and natural heritage
- Significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to the global GDP caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.
- Reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.
- Provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities. Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning
- Substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement holistic disaster risk management at all levels.

As of 2021, India was ranked 135th in the world, with stagnating progress towards SDG-11 and our 2030 goals.

Housing

Housing in India has seen inconsistent growth over the last 24 years. While the percentage of Indians living in urban slums has remained under 50 per cent since 1995, the population reached an all-time low of 24 per cent in 2014, but has since risen and stabilized at 35 per cent.



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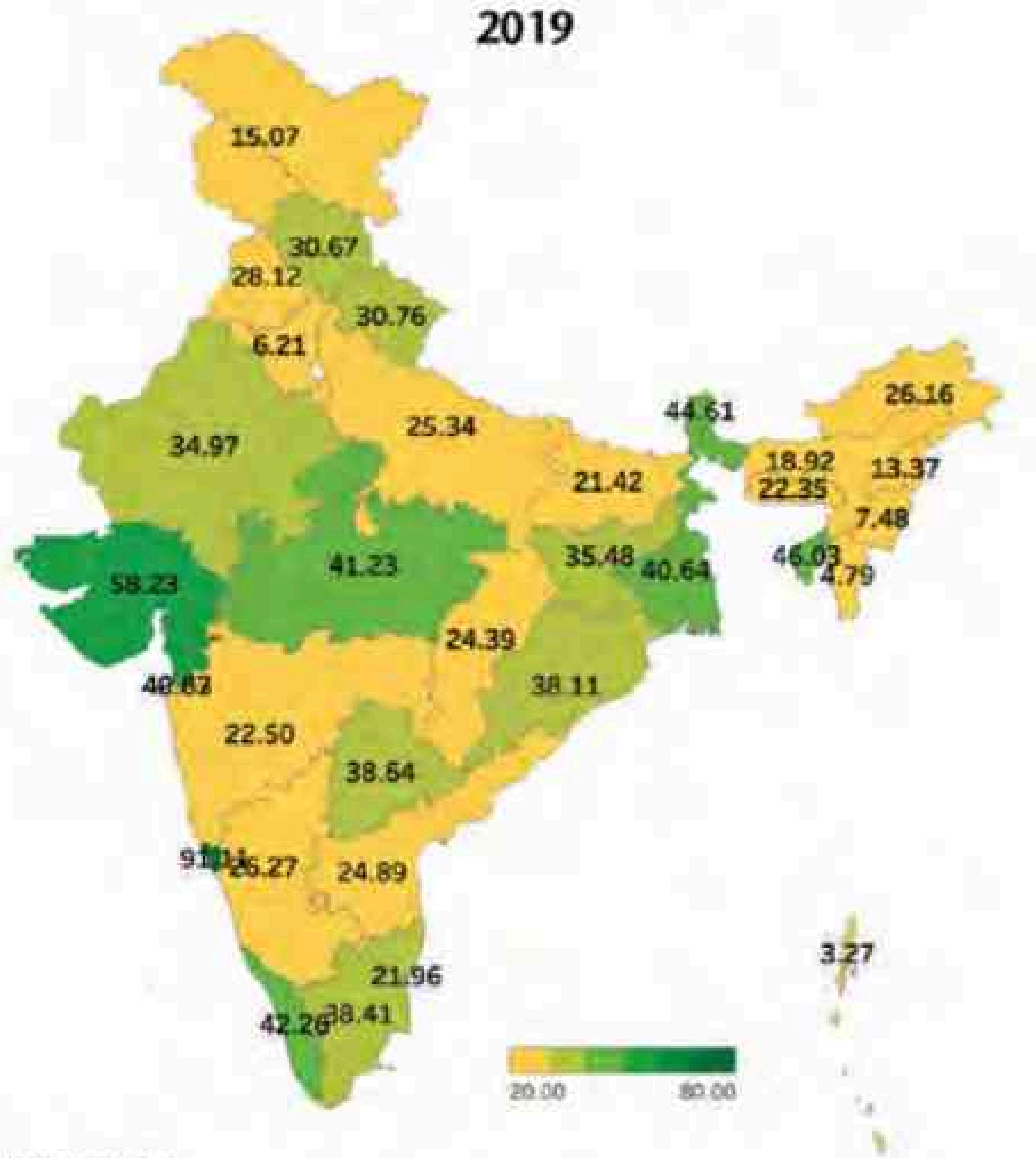
Houses completed under PMAY as percentage of net demand assessment for houses

2019



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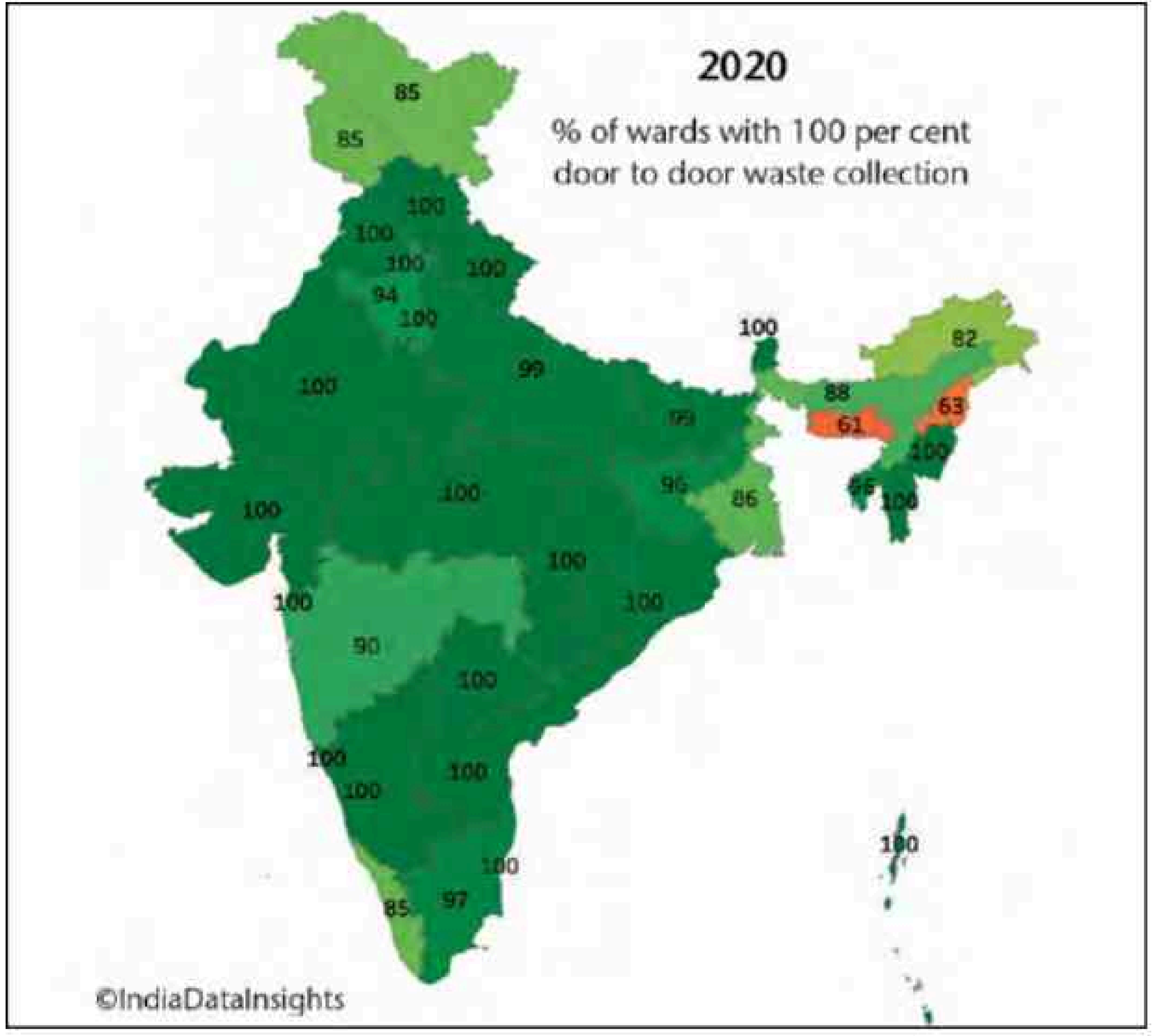
Pradhan Mantri Awas Yojana (PMAY) has provided affordable housing to the urban poor. Today, PMAY has provided the highest coverage in Goa, Gujarat, and Tripura. Among the larger states, the least coverage is seen in Haryana, followed by Jammu and Kashmir, and Assam.

Waste Management

As of 2020, Waste Management is present in most districts in the country, while waste segregation at source is steadily improving. Among all the states, Himachal Pradesh and Chhattisgarh have 100 per cent door-to-door collection, and source segregation of waste. Across India, door-to-door waste collection improved with 96.7 per cent of wards having door-to-door waste collection by 2020. However, waste processing has fluctuated significantly in recent years.

Municipal Solid Waste, however, is lagging. As per 2020 records, the installed sewage treatment capacity as a proportion of sewage generated in urban India was at 45 per cent. Among all states, Haryana and Himachal Pradesh have a much higher sewage treatment capacity as compared to the sewage being generated.



2020

% of wards with 100 per cent door to door waste collection

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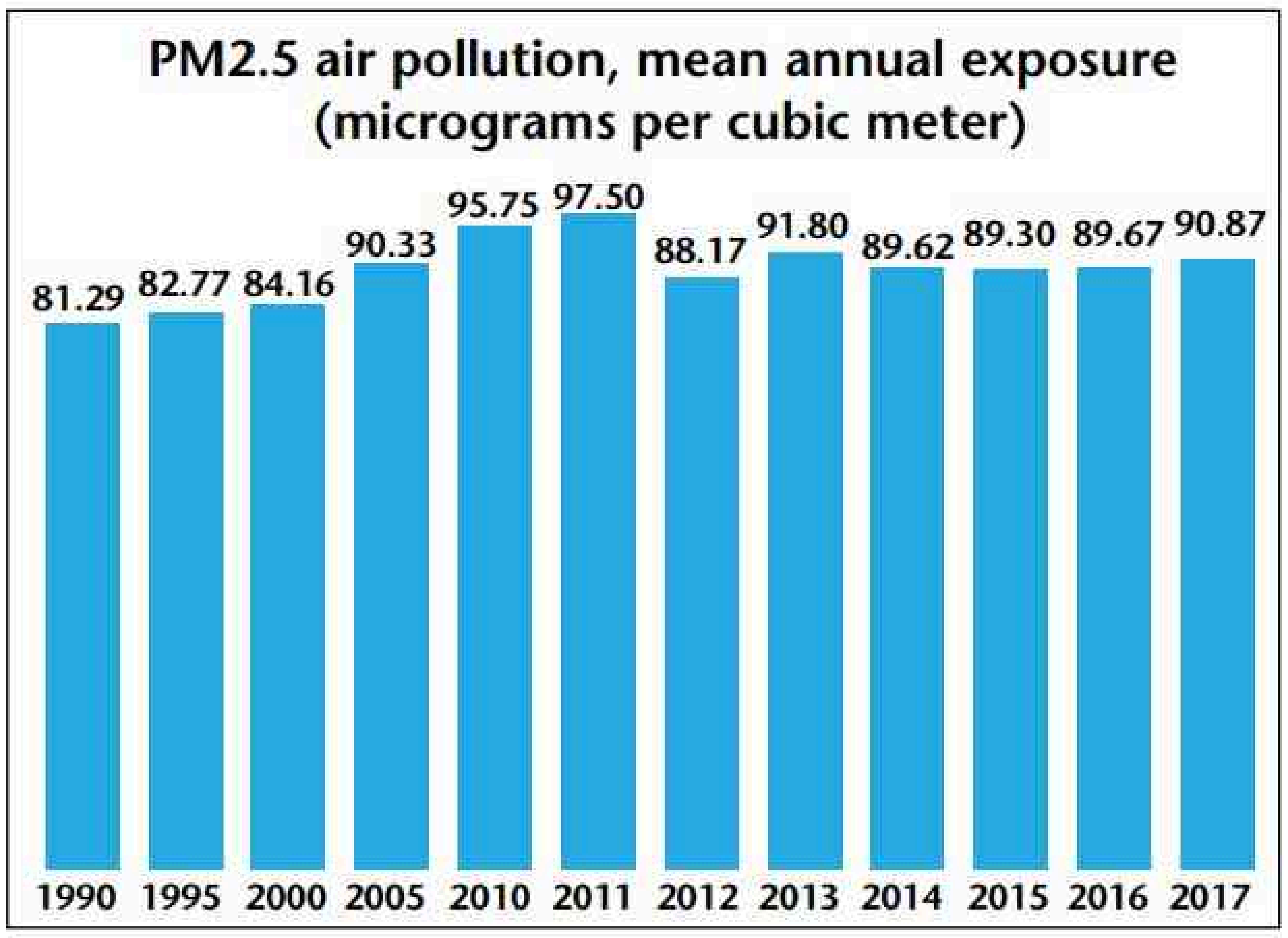


PM2.5 air pollution, mean annual exposure (micrograms per cubic meter)

Air Pollution

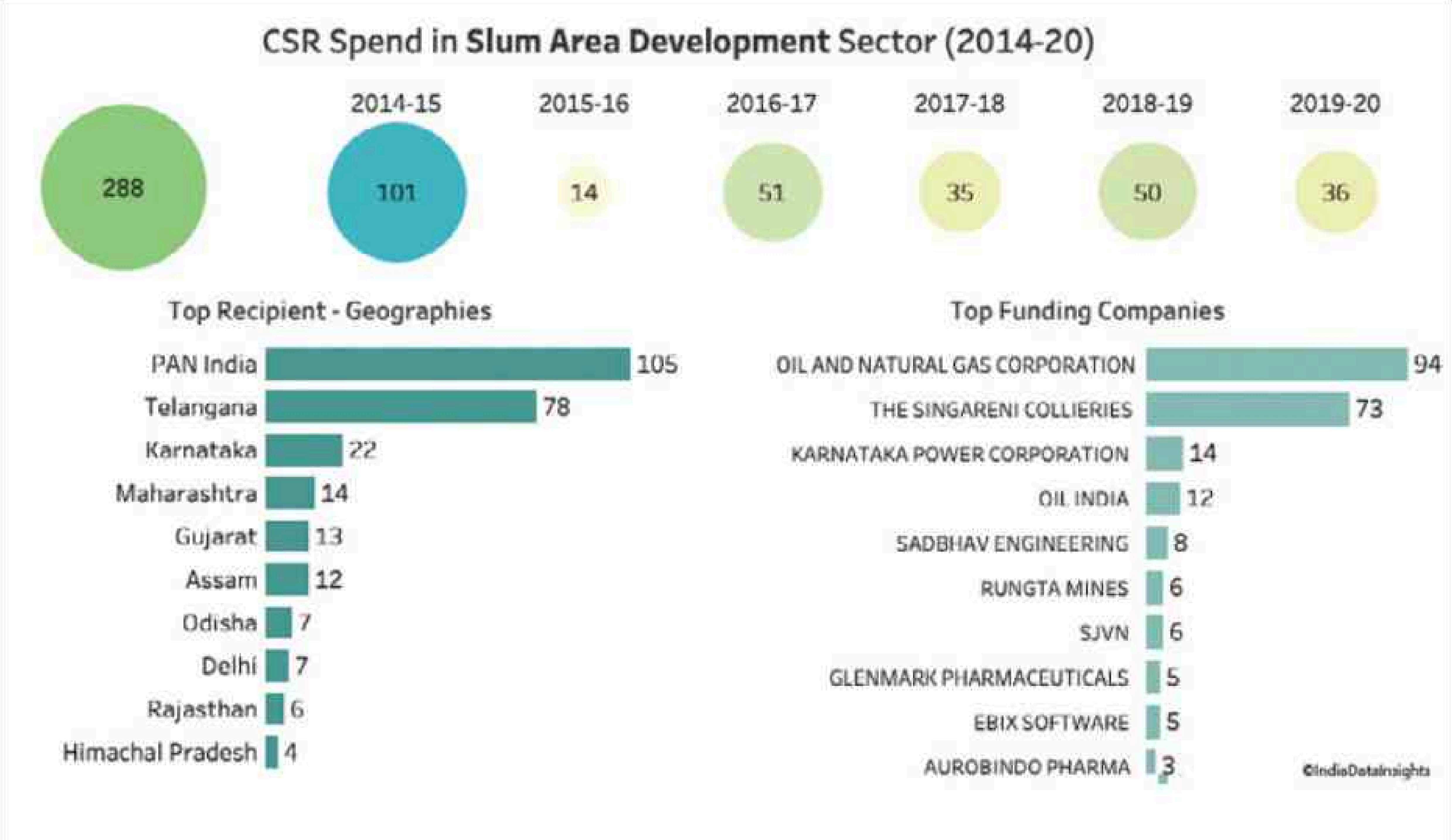
Air Pollution in India has been on the rise. The PM2.5 mean annual exposure peaked in 2011 due to significant pollution emanating from cities and urban areas. PM2.5 describes fine inhalable particles, with diameters generally 2.5 micrometres and smaller. PM10 exposure peaked from 2013-2016 in India's major cities, with Delhi being the highest.

Disaster Risk Reduction

Data from India's National Institute of Disaster Management showed that since 2015, there has been a steady decline in the number of people affected by disasters, along with continued growth in the number of local governments (from 684 to 720) who are adopting risk reduction methods.

The UN Office for Disaster Risk Reduction rates disaster preparedness based on the Sendai Framework for Disaster Risk Reduction, which advocates for the substantial reduction of disaster risk and losses in lives, livelihoods and health and the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries. The score varies from 0 to 1. The UN has found that India has shown a 'comprehensive alignment' with the Sendai Framework, scoring 1 for two years in a row.

CORPORATE CONTRIBUTION



CSR Spend in **Slum Area Development** Sector (2014-20)

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One of the targets for SDG-11 is to ensure universal access to adequate, safe and affordable housing and basic services, and upgrade slums, by 2030. Corporates are helping to achieve this target by funding programmes in slum area development. Over the last 6 years, ₹288 crores have been spent in slum development projects. The funding in this sector has witnessed a downward trend. ONGC and The Singareni Collieries are the top companies who have spent more than ₹167 crores in this area, accounting for nearly 60 per cent of all CSR funding in this space. Telangana has received nearly 25 per cent of all CSR funds in this area, followed by Karnataka, Maharashtra, Gujarat and Assam.

Creating sustainable cities

How can India ensure achievement of Sustainable Cities and Communities by 2030?

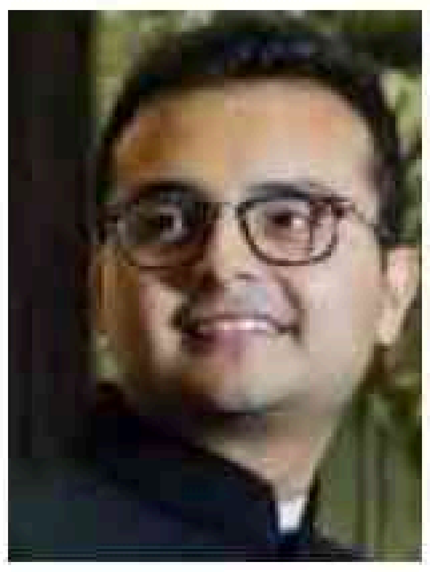
Year 2030 will mark the culmination of SDGs as set by the UN General Assembly. As we reach the halfway mark, it's important to understand our progress so far, particularly in meeting SDG-11. With the pandemic worsening the living conditions of low-income families, most countries are still falling short of meeting critical metrics like open public spaces, national urban policies, and access to public transport.

In India, affordable housing has been the core focus in achieving the goal of Sustainable Cities and Communities. Rapid urbanisation combined with high density in urban areas has created an urgent need for housing. However, inadequate infrastructure remains the biggest threat in meeting the goal for sustainable cities by 2030. The insufficiency of critical infrastructure for public transport, social amenities, water management, waste disposal, recycling, financial aid, or quality construction, risks derailing much of the progress so far. While the government is working towards fulfilling these goals, the corporate sector must pitch in through proactive measures.

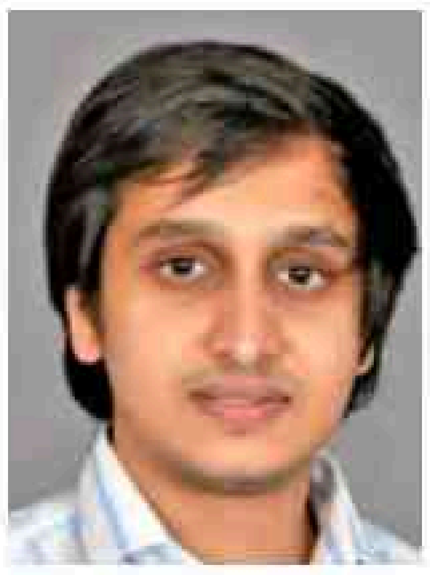
These initiatives are not just vital from the standpoint of public-private partnership – investing in affordable housing is also important for mitigating risks arising out of differences in income and social classes. The Global Risks Report 2022 by the World Economic Forum pointed out that divergent recovery in the post-Covid economy threatens long-term prosperity for all. A lack of adequate housing, thus, can have far-reaching consequences – from impacting the living conditions of employees to destabilising the housing value chain. How can corporate leaders take the lead in mitigating these risks? The answer may lie in taking forward government initiatives by building affordable housing, influencing land use by building holistic communities, and resolving credit issues through innovative measures.

Key areas and risks to address: India has an urban housing shortage, with the latest data showing a 95 per cent gap for low-income households. Figures also reveal a disparity in access to housing, with 13 million households living in slums even as an approximate 11 million houses remain vacant across India. While these figures are based on the last census conducted in 2011, disparity in access to housing still persists in urban areas. Redressing this imbalance will require innovation and policy initiative in the following areas:

Improving construction quality: Housing for most urban poor has been limited to slum areas.



HERSH SHAH



RAHUL PAREKH

Hersh Shah, CEO, Institute of Risk Management (IRM) – India Affiliate
Rahul Parekh, Promoter Group, Suraksha Realty

Affordable housing cannot come at the cost of compromising on the quality of living. Hence, we must focus towards low-cost, but high-quality construction materials with low turnaround time, such as precast materials. Precast technology allows us to build large-scale, compact, habitable units off-site in advance, allowing for quick construction. Many businesses, like tech companies, have also invested in campus models where employees are housed in a campus-like cluster. In time, this can be built for a thriving local ecosystem that also includes low-cost housing for non-employees.

Policy and government support: In affordable housing, the government plays a crucial role by incentivising low-cost construction through tax breaks and subsidies like Affordable Housing-in-Partnership (AHP) for private developers and Credit-Linked Subsidy Scheme (CLSS) for low-income families. Other schemes like in-situ Slum Redevelopment (ISSR) encourages redevelopment by private developers while Beneficiary-Led Construction (BLC) incentivises upgradation by residents. Stamp duty cuts by state governments like Maharashtra and Karnataka last year brought down property costs, leading to a surge in demand.

Connectivity and local transport: Low-cost housing sites are usually located at the outskirts of major cities, which makes local transport a key deciding factor for their viability. Access to public transport is critical for people to reach their place of work. For instance, the distance to the nearest local train station is a key deciding factor for affordable houses in Mumbai.

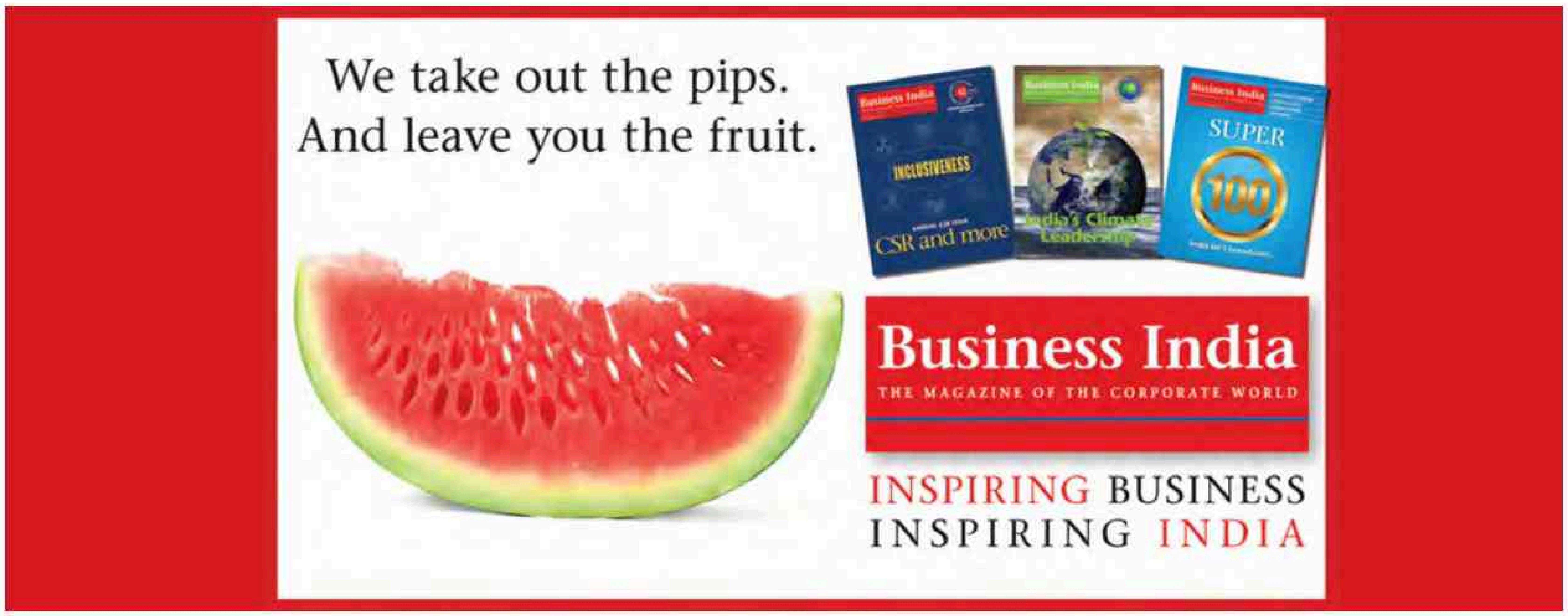
Innovative financing schemes: One of the key challenges in ensuring housing for all is the availability of housing loans for people with low income. Most people in this demographic are not credit tested, which makes it difficult to avail loans. The National Housing Bank (NHB) has been pushing the affordable agenda through low-cost refinance schemes, credit-linked subsidies, and pro-consumer policies. The emergence of fintech companies is expected to further disrupt the status quo as these companies aggressively expand through innovative credit facilities such as deferred loan repayments plans. Currently, home affordability, a ratio of property value to annual gross income, is pegged at 3.5, the best in more than decade.

Challenges ahead: The goal of housing for all will be marked with challenges, starting with the very definition of low-cost housing which still remains unclear. Despite the many initiatives taken by the

government, there are notable drawbacks, such as complicated and lengthy approval processes. Apart from fast-tracking approvals, the government can also ease development norms, review zoning provisions, and relax registration and stamp duty for low-cost housing projects.

The first requirement is availability of land within municipal limits, which can be difficult in major urban cities like Mumbai. In addition, these sites must be supported with appropriate infrastructure, such as telecommunications, healthcare, and education. Finance remains another challenge, given the limited financial resources in the demographic. It is also an area where the government has focused heavily by encouraging private partnerships with finance companies while introducing incentives and subsidies for home owners and developers.

As the World Economic Forum in Davos 2020 pointed out, it is high time that global industry leaders addressed this issue. Creating sustainable housing has a long-term impact on community prosperity, health, and quality of life. In India, the mantle has been picked up by private developers, real estate companies, banks, housing finance companies, and fintechs offering microfinance schemes. The government must also continue to nurture such public-private partnerships through supportive policy initiatives. With a collaborative effort from corporates and the government, it will be possible to avert the risk of failure, and the country will be able to easily achieve the goal of developing sustainable cities and communities by 2030. ◆

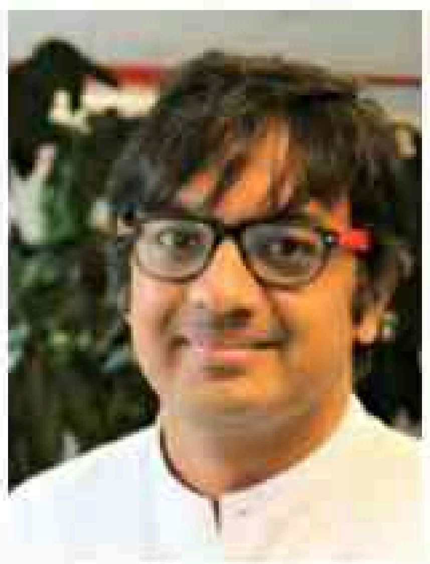

We take out the pips.
And leave you the fruit.

Business India
THE MAGAZINE OF THE CORPORATE WORLD

INSPIRING BUSINESS
INSPIRING INDIA

Sustainability as lifestyle

We need an expansive view of the corporate sector



DEEPAK SRIRAM KRISHNAN

SUMEDHA MALAVIYA

Indian cities are thriving... As cities have been recognised as engines of economic growth several national programmes targeting their sustainable development have been launched - like the Smart Cities Mission, AMRUT, and Solar Cities Programme.

The narrative around SDG-11 focuses mainly on large corporates, like NTT – the global technology service provider, which has been roped in as a 'business avenger' – a UN-led initiative to engage the corporate sector to popularise SDG-11 by 'innovating, collaborating, and driving progress' towards the global goals. But achieving these goals requires commitment from businesses large and small. We believe given the role of small businesses in cities, we must take a wider view of what constitutes 'corporates' or 'businesses'. Cities and companies through their supply chains are significantly dependant on Micro, Small and Medium Enterprises (MSMEs). MSMEs also provide considerable local employment. This is true across several developing countries. Therefore, MSMEs must be included to achieve 'resilient, equitable and sustainable cities'.

Moreover, the reach of global corporates is limited to their own supply chains, and to attain net-zero emissions – in this case, meaning sucking in as much carbon as cities pump out – small businesses must be roped in symbiotically. Although corporates such as Apple and IKEA are persuading their supply chains to adopt clean energy measures, considering the size of small business agglomerations and IT parks in India, the potential to scale is huge.

MSMEs are often criticised for not complying with pollution standards. However, they are acutely aware of these requirements given their linkages to global supply chains. WRI's engagement with small business clusters in Surat, Gujarat has revealed that MSMEs are keen to adopt clean energy and resource efficiency measures but lack technical know-how and capital investment capacities. This is where large corporates' deep pockets, and access to research and modern energy efficiency and sustainability technologies become invaluable in passing them down through their supply chains. To do this, MSMEs must be brought on board to discuss their shortcomings and challenges.

How are Indian corporates integrating SDG-11? Several Indian companies have been actively involved in different sustainability initiatives in the cities they are located in. In the last decade, IT majors like Infosys have driven sustainability leadership by testing and scaling several innovations in digitisation to improve energy efficiency of their buildings and to integrate clean energy measures, in the buildings sector by introducing resource efficient products and technologies and implementing 'green infrastructure' in its development projects.

What is the synergy between corporates and cities? Indian cities consume a third of the country's electricity. With the projected growth in population and as-yet-unbuilt floor spaces, the quantum of energy consumed in cities is expected to increase exponentially. This provides an opportunity for Indian cities to leapfrog towards the use of clean resources. Indian cities have been leading on this front by signing up to initiatives like (Mumbai, Pune, and other cities in Maharashtra; Bengaluru), and C40 cities (Delhi, Mumbai, Bengaluru), Kolkata, Chennai) which require that they commit to actions to mitigate the impacts of climate change. Particularly on the clean energy side, small and large businesses in these cities have engaged electricity distribution companies, regulators and project developers over the years to reach a of renewable energy as on 31 June, 2021.

But an oft-overlooked sector is construction, which constitutes myriad MSMEs across Indian cities. As demands to decarbonise buildings continue, there is much scope for large businesses to set a benchmark of a circular economy and persuade their supply chains to integrate sustainable resources in their construction materials. Such as requiring improved energy performance, ensuring on-site and off-site renewable energy, and using recycled and low-carbon embodied products, which are durable and disaster-resilient. Installing distributed renewable energy grids for upcoming construction and retrofitting efficiency measures on built spaces are other ways to improve circularity. By demonstrating such circular economy principles, businesses can inform the understanding of city governments to reform urban planning and procurement practices towards resource efficient growth. Businesses can also inform and support financing strategies for such measures.

Is corporates' support for SDG-11 a brand building exercise? With extreme weather, the annual COP meetings and the global push towards low carbon resources occupying public discourse, sustainability efforts by corporates often do appear to be brand-building exercises. But businesses have an opportunity now, more than ever before, to showcase sustainability as an aspirational lifestyle, to attempt systemic change in the built environment. ◆

Deepak Sriram Krishnan is Associate Director, World Resources Institute; Sumedha Malaviya is Programme Manager, World Resources Institute

For a self-reliant India

Decarbonising mobility, building a sustainable society

BHARAT KAUSHAL

From the corporate sustainability perspective, firm, society, and environment are the three key stakeholders associated with creating economic, social, and environmental values, respectively. In the last two decades, a profound change has taken place in business, from maximising value just for shareholders to focusing on value creation for society as a whole. SDGs provide a framework for corporations to re-align the way they do business by effectively integrating the transformation of society at large.

At present, companies are becoming aware that responsible behaviour leads to long-lasting business success. Sustainable development is 'development that addresses the present needs without undermining the ability of future generations to meet their own needs.'

The 17 goals include the three dimensions of sustainable development: economic growth, social inclusion, and protection of the environment. The government, the business sector, civil society, and the public, all have an important role to play in achieving the SDG agenda. Each SDG provides an opportunity for corporates to deliver products or render services, thus improving the citizen's quality of life.

Taking cognisance of the role of technology in realising these objectives, Digital India and e-governance have become the prime drivers to the nation's sustainable development by promoting transparency, accessibility, and accountability in the system. This rapid make-over positively impacts the day-to-day life of the citizens. Recognised as a global leader in advanced OT (Operational Technology) and IT, Hitachi fully supports the government's digitalisation initiatives and its contribution towards realising SDGs. It is helping embrace the new era of agility and smarter working in India.

The company considers sustainability an integral part of its business ethics and aspires to become a sustainable conscious organisation. Its ingrained values and culture rest on the solid pillars of offering technology that is sustainable and can help lay the solid foundations for building a self-reliant India. Hitachi has significantly contributed to achieving SDGs through its Social Innovation Business, which is the driving success of its sustainable growth, both globally and in India.

India is heavily investing in infrastructure and urban transportation to transform its cities by adopting a revolutionary approach that promises its citizens affordable, multiple modes of transportation, including rapid mass transit systems, on-demand mobility solutions, ridesharing, vehicle-sharing, electric vehicles, biking, walking, and even more. India's evolving social infrastructure and digital revolution is all set to transform the way the country will commute. Decreased road congestion, lower carbon emissions, reduced travel time, and ease of travel will greatly improve the quality of life for the citizens of the nation.

Marked by high flexibility, convenience, and clean and green technologies, Hitachi's mobility solutions are designed with the aim of tackling the challenges of climate change and providing a safe and reliable transport option to support growing urbanisation thus enabling the fulfilment of SDG-11. Tackling challenges faced by the mobility infrastructure in India, Hitachi leverages its holistic urban transport solutions, ranging from energy-efficient rolling stock, advanced signalling systems, traffic management system, automatic fare collection and financial services solutions, world-class station equipment, passenger information and security solutions, and more, to progressively improve social and economic values for the people of India.

Through smart mobility solutions, the company is creating a huge impact. The solutions ensure mobile comfort for citizens, addressing issues like last-mile connectivity, optimisation of existing capacity, feasibility of varied transportation modes and safety demand. Hitachi has paved the way for an intelligent transport infrastructure with digital integration that puts commuters' safety and convenience at the forefront. Importantly, Hitachi is helping India decarbonise its mobility sector in a big way and building a sustainable society.

Hitachi Social Innovation Business, leveraging proficiency in OT x IT is committed to social empowerment, and is 'Powering Good' by actively partnering with India's visionary planners, implementers, and operators to usher in a sustainable, environment-friendly transport infrastructure in India and co-create a better future where people lead a richer, fulfilling life.

A healthy public-private-citizen partnership with shared vision and goals is the only way to successfully implement SDGs and make the world a better place to live in. Hitachi has set stringent milestones, strategies, and a robust business framework that will help in reducing the environmental impact along with fuelling the augmentation of a conducive business environment.

◆

The author is Managing Director, Hitachi India

Invest intelligently

Sustainable mobility is the key to combat climate change

SAPNA BHAWNANI

The UN's SDGs represent commitments that every responsible government, corporation and individual on earth must support. The economic influence and social power of the corporate sector means enterprises have both a particular responsibility and a significant opportunity to advance the SDG agenda. Their policy choices, strategic plans and corporate messaging have a multiplier effect, as they reach millions of consumers who form their target audiences.

As a global leader in the transportation sector, Alstom is strongly positioned to support among others SDGs 11 and 13. The company is committed to the decarbonisation of transport and our strategic plan, 'Alstom in motion', embodies our ambition to be the leading global innovative player for sustainable and smart mobility.

Globally, the transport sector contributes significantly to the climate crisis. It is responsible for 25 per cent of the greenhouse gases and is the only one that has not reduced its emissions in the past 10 years. However, the bulk of this environmental damage is caused by road traffic, which accounts for three-quarters of transport emissions and 15 per cent of total global CO2 emissions.

Trains represent 8 per cent of world passenger traffic and 10 per cent of freight traffic, but only 3 per cent of energy consumption in the transport sector. Rail transport is unquestionably greener. When a traveller chooses the train, his or her journey will emit 30 times less greenhouse gases than if they travelled by car, and 20 times less than in an aeroplane. Trains consume 12 times less energy and emit seven to 11 times less greenhouse gases than private vehicles and planes (per passenger-km). In terms of emissions, a freight train is the equivalent of 50 trucks and a passenger train is the same as 500 cars.

In India, the transport sector contributes to 12 per cent of the country's greenhouse gas emissions, with the railways accounting for about 4 per cent of these. These emissions have more than tripled since 1990.

We believe the case for rail transport is proven, and it is gratifying to know that the Indian Railways has announced that it is likely to become the world's first 'net-zero' carbon emitter by 2030. While we accept that road transport is never going to disappear, positive change is possible. Currently, India's roads carry 64.5 per cent of all goods – switching some of this load to rail will have an obvious and immediate impact on dangerous emissions.

Initiatives taken so far are mainly focused on the replacement of petrol-driven cars by electric vehicles. This is understandable given the importance of the global automobile industry and the social conditioning that has made car ownership a marker of individual economic success.

However, it cannot be the only solution. What is needed is a major expansion of multi-modality – a world of transport options that includes comfortable, efficient, affordable trains for cross-border high-speed travel and suburb-to-city commuter lines, a greatly improved public transport infrastructure and greater encouragement of the use of metros in the urban environment.

Many elements of this scenario are already in place globally. Advances in rail technology are dramatically improving the passenger experience. Data analytics is facilitating everything from predictive maintenance to passenger information systems that eliminate the uncertainties of travel. Advanced signalling systems are allowing safer, faster and more frequent services – as well as Wi-Fi connectivity throughout the passenger's journey. Highly sophisticated cyber security systems, designed for the unique characteristics of trains, will ensure passengers are protected from attacks on the train and from intrusions into their Wi-Fi-connected devices.

We applaud India's higher adoption of e-buses and expansion of metro lines in several cities and the continuing electrification of existing rail lines. We are confident that railways will prove to be the backbone of tomorrow's green mobility, in a world where commuters can enjoy stress-free travel in relaxed comfort. Efforts here need to continue and accelerate.

Globally electric trains are a major environmental advance on diesel power and Alstom continues to innovate in this field. We are world leaders in the design and production of zero-emission hydrogen-powered trains as well as battery electric trains. Both types are already in service in Germany and we can anticipate their eventual adoption around the world.

India's corporations can do much by supporting the government's modernisation initiatives and working towards the promise made at the COP26 summit of achieving net zero emissions by 2070. It is not unreasonable for corporate programmes aimed at addressing SDGs to enhance the company brand, but consumers will quickly detect any cynicism or lack of sincerity. The raw truth is that tackling the climate crisis cannot be delayed. Corporations must accept their responsibility and invest intelligently in processes, products and services that will not only drastically cut emissions but help to ensure the very survival of the markets that generate their profits. Alstom is committing to do exactly that. ◆

The author is Vice-President, CSR, Alstom Asia-Pacific

Tackling mega problems

By 2030, India is expected to be home to seven mega-cities with populations above 10 million

TATA MOTORS

A new pathway for development

Women making millet ladoos

The Integrated Village Development Project (IVDP) is a collaborative effort of four stakeholders – the government of Maharashtra, Tata Motors Limited (TML), BAIF Institute for Sustainable Livelihoods & Development (BISLD) and the Pathardi Gram-panchayat in Jawhar taluka of Palghar district in Maharashtra. Jawhar is the tribal block tagged as an aspirational district by the government of India, as it falls low in all the parameters of socio- and economic development. Pathardi is a gram panchayat under Jawahar block of Palghar district, where 99 per cent of the population is tribal and 72 per cent of households falls under BPL category. Pathardi gram panchayat comprises 796 tribal families and 3,163 population in six villages.

Agriculture is predominantly rainfed, despite the fact that the area receives more than 2,500 mm of average rainfall. Paddy is the main crop grown only during the *kharif* (monsoon) season, with millets/pulses/oilseed crops grown as minor crops. Due to low productivity, farming is not enough to feed the families for the entire year and, during the off-season, tribal families migrate to nearby cities in search of wage labour.

Therefore, a collaborative project was initiated by Tata Motors in 2018 for addressing issues such as lack of sustainable livelihood opportunities, water scarcity, low agricultural productivity, malnutrition, lack of access to basic medical services and limited access to higher education faced by the community. The project aims to achieve increased food and income security, improvement in the asset-base of the tribal population, reduction in the vulnerability of the tribal population to economic shocks, and improvement in the quality of the tribal community in the project area.

The uniqueness of this collaboration is the joint efforts of these four stakeholders, where the district administration of Palghar district has assured the provision of ₹13.67 crore (87 per cent) for implementation of various schemes of the government, routed through different line departments. TML, which is contributing to this project under its corporate social responsibility initiative (CSR), has assured to contribute ₹2.02 crore (12.5 per cent of the budget) and community contribution will be ₹90,000 (0.5 per cent).

Mobilising funds The district administration of Palghar district entered into a formal memorandum of understanding with TML, for assuring benefits to the community by converging with various government schemes. The project activities were implemented as per the comprehensive village development plan prepared in consultation with the community and line departments of the government.

There were some hurdles such as delay in approval and implementation of the activities, while working with different stakeholders, which were resolved within specified time through regular meeting. In the three years of project implementation, the district administration has been able to mobilise government funds valued at ₹5.61 crore (71.64 per cent) through programmes such as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Agriculture Department, Tribal Development Department, Minor irrigation, Panchayat samiti and ICDS.

TML has undertaken works such as agriculture development, water for irrigation, tree-based farming, livestock development, women empowerment and governance, amounting to ₹2.13 crore (28.21 per cent) and ₹120,000 (0.15 per cent) contribution by the community.

The impact of the project on the participant community vis-à-vis the set goals are: 75 per cent inclusion of government schemes in overall development; increased food and income security of 100 per cent families;

25 per cent increase in villagers' income; 75 per cent reduction in the vulnerability to economic shocks due to diversification of sources of income through agriculture livelihoods and skill enterpreunership; 80 per cent reduction in overall migration from the village; 133 hectares of land transformed from bare to cultivable; improvement in the quality of life through health, drinking water and education to 100 per cent families; and women empowerment through income generation, participation in social audit.

TML has added two more gram panchayats under IVDP in Jawhar. Other TML locations have replicated this model, such as one gram panchayant in Sanand and seven in Jamshedpur. Plans are to adapt IVDP model of convergence and strengthening self governance in 100 villages in three years time. ◆

EMBASSY GROUP

A model for panchayats

The 17 Sustainable Development Goals (SDGs) and 169 targets are in consonance with global concern, which must be mitigated to fulfil the aim of a better and more just world for all. Among its key commitments to the SDGs, India targets to achieve 450 gigawatts of renewable energy capacity by 2030. As a responsible industry leader, Embassy Group supports the national commitments and the larger aims of the SDGs.

Embassy's competency as a developer means it's uniquely poised to understand and support the city's challenges with waste and urban infrastructure. Waste management and soil and water conservation play a key role in sustaining the environment for the present as well as the company's immediate and long-term future. In 2020-21, it provided ₹76.5 lakh to The Anonymous Indian Charitable Trust (TAICT) for a joint EcoGram project, which works closely with NGOs to catalyse communities to develop and implement strategic infrastructure for sustainable environmental management. The company aims to create an ecologically sound model Gram Panchayat to propagate waste, water and soil management, which can then be replicated across the city and country.

In addition, the company has undertaken several initiatives to uplift the urban infrastructure of Bengaluru, utilising the networks of government agencies and corporate tenants. Embassy has offered to partner with the National Highways Authority of India to transform 101 pillars under the elevated road from Hebbal flyover towards the Kempegowda International Airport, Bengaluru. It initially approached NHAI with a proposal to upgrade the pillars due to its emphasis on transforming and maintaining public spaces. The execution of the project was jointly managed by Embassy and the Ugly Indians, an anonymous volunteer citizen group.

Embassy offers waste management solutions in North Bengaluru

Transforming hotspots Embassy has also previously collaborated to transform over 80 hotspots in Bengaluru with the support of the Ugly Indians, corporate partners and government authorities, such as the BBMP (Bruhat Bengaluru Mahanagara Palike), village panchayats and other local bodies. As much as 58 of those hotspots were in the Domlur tech-hub area, around the Embassy GolfLinks Business Park.

Embassy offers waste management solutions in North Bengaluru, working closely with NGOs to catalyse communities to develop and implement strategic infrastructure for sustainable environmental management. It is a partner of TAICT's EcoGram Solid Waste Management project. Initiated in 2016, EcoGram jointly aims to create an ecologically sound replicable model Gram Panchayat to propagate sustainable waste, water and soil management. With current operations spread across eight villages in the Bettahalasuru panchayat, Embassy has invested in de-centralised solid waste management over the last four years, where waste is sorted into three categories at source using the two-bin-one-bag methodology. The collected organic waste is then converted into compost, and the recyclable waste is sorted within the Gram Panchayat.

Since its inception, the programme has collected over 204 tonnes of dry waste and 215 tonnes of wet waste. As much as 115,332 kg of dry waste has been collected and segregated in the last one year alone, while the quantity of wet waste dealt with during the same time is 112,205 kg, helping the company to reach a 92 per cent level of segregation.

To complement the solid waste management infrastructural solutions provided in the Panchayat, a strong emphasis is also placed on community engagement and awareness initiatives curated through women and children in the communities. Summer camps, the 'EcoGram Shakthi program' for empowering and skilling the women in the villages, fests, awareness marches, monthly clean-up drives and more, all work towards increasing responsibility towards their communities. Employees have been encouraged to participate through supporting these awareness interventions.

Embassy has signed an MoU with the Yelahanka and Bettahalasuru panchayats to build and manage a Dry & Wet Waste Collection Centre in a dedicated two-acre land, benefitting 18 villages. The centre is currently under construction and will be completed in the coming year. Employees from within Embassy as also the Office Park tenants have been regular participants in the hot-spot beautification over the years.

The central focus of TAICT's approach to this project is to follow the Swachh Bharat Manual on Solid Waste Management 2016, modified to address a village context. The current poor execution of waste management within urban areas is usually associated with changing political currents and the 'garbage mafia.' The intention of this project is to address the problem of waste by controlling every step of the process from beginning to end, and to intervene before the Bettahalasuru panchayat is taken over by similar forces.

The roadmap created by TAICT and Embassy's EcoGram programme can be used as a model for making panchayats across the nation sustainable and resilient. ◆

HELLA INDIA LIGHTING

Safety drive

Road transport is the dominant mode of transport in India, in terms of traffic share and in terms of contribution to the national economy. However, a negative externality of expansion in road network, motorisation and urbanisation in the country is the increase in road accidents. Road traffic injuries are one of the leading causes of death, disabilities and hospitalisation in the country. India loses an Indian every four minutes and witnesses an accident every one minute.

The young, productive population, aged 18-45, is involved in 70 per cent of these accidents, causing an impact on India's economy. According to the World Bank, road accidents cost 3-5 per cent of India's GDP every year. This problem is likely to aggravate and pose a threat to India's growth story. SDG 11.2, which concerns half the number of deaths from road traffic accidents, provides access to safe, affordable, accessible and sustainable transport systems for all.

Hella India Lighting, being part of the automotive industry, finds itself connected with the above problem. As a responsible corporate organisation, it is a pioneer in adopting 'arresting road deaths' as core to its central driving force. Since 2011, Hella has been adopting a vision to reduce deaths on Indian roads, with every employee of the company participating in road safety campaigns. It has also organised awareness activities in partnership with the government, industry bodies and other stakeholders.

Benefits of keeping distance One such campaign was India Against Road Crash IARC 2020, which was announced by the Ministry of Road Transport & Highways during the 31st National Road Safety Week. It plans to start a sustainable chain of campaigns, which will not only make people aware and transform their behaviour on roads, but also lead to formation of road safety clubs among corporates, institutions and organisations at various locations.

The campaign has gathered momentum online too, with thousands of pledges signed digitally on the campaign website.

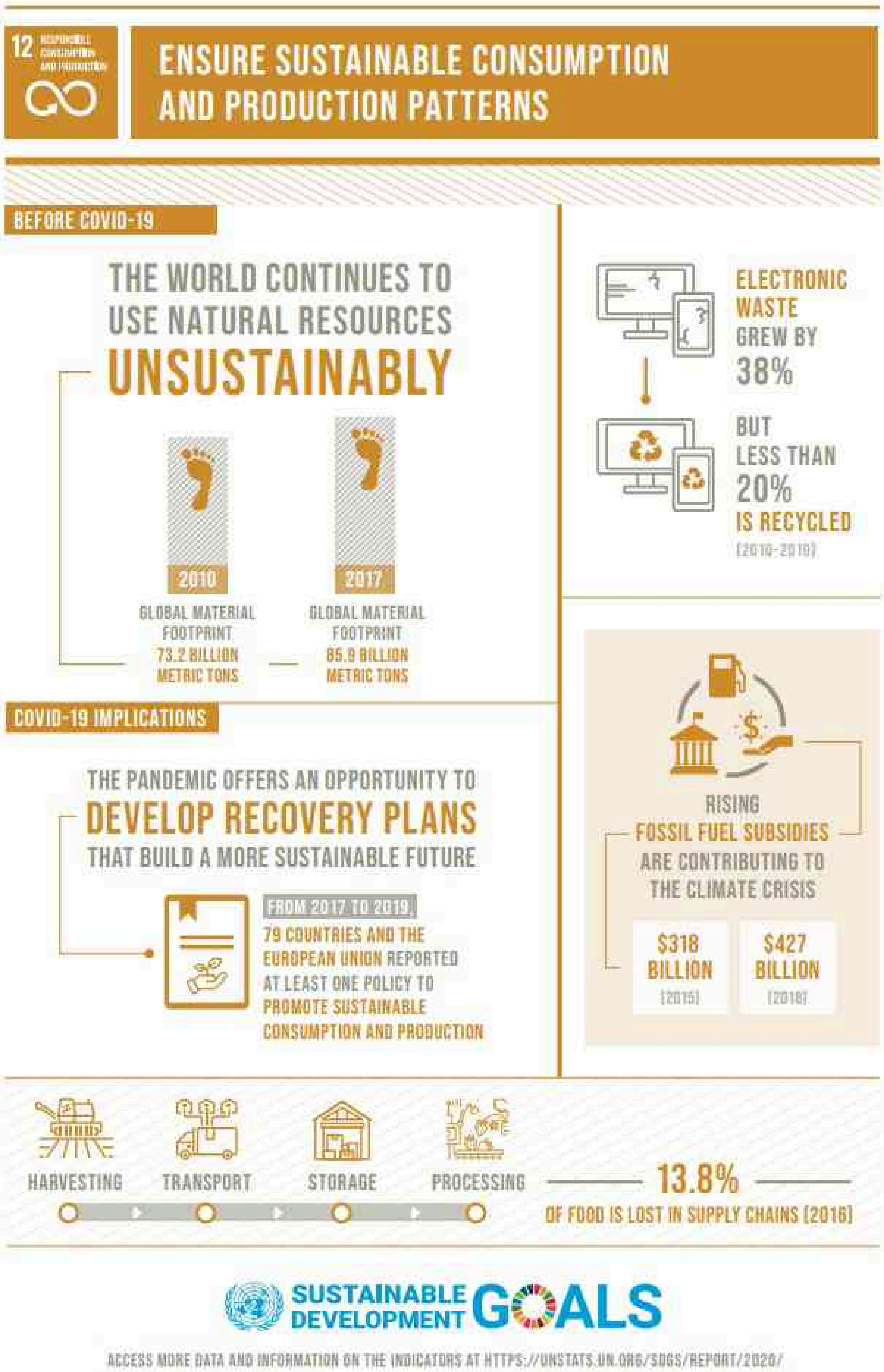
The outbreak of Corona virus in the early months of 2020, followed by a complete lockdown across the country, caused changes in social life, with social-distancing extending to road traffic distancing. The campaign was executed by corporates, schools, universities and other institutions. It aimed to educate, and train drivers on the benefits of keeping distance from another vehicle on the roads.

Since the launch of the campaign doori hai zaroori on 28 July 2020, it has already digitally micro-trained 25,000 plus road users and has successfully enrolled 500 plus trainers to impart it across their own circle of families and friends.

Many companies in India have focussed their activities in the same direction and joined forces with Hella. Today, its customers such as Tata, Ashok Leyland and Mahindra, as well as automotive suppliers such as Bosch and ZF-Wabco work with Hella to promote road safety throughout the country. The annual highlight of the activities is the National Annual Road Safety Week/Month, organised by the government, with thousands of volunteers demonstrating on busy streets to raise the car drivers' and Motorcyclists' awareness with posters on the roads. They also hold workshops in schools to train youngsters.

Through 2021, the Hella volunteers have continued their efforts, while respecting Covid-19 hygiene precautions. This year's campaign was built around an app to promote behavioural changes on the roads, warn drivers of accident black spots and offer quizzes as well as prizes. With the help of the Ministry of Road Transport & Highways, this year saw the launch of India's first ever national championship on safe driving, titled: Safe Speed Challenge, which was an innovative and participative mass campaign on road safety. An all-women team demonstrated convoy driving style in traffic distancing format, by maintaining safe speed and safe distance between the vehicles, driving through the main national highways of the country and thereby becoming a 'role-model' for all road users. The campaign's aim was to positively reinforce safe driving by 'recognising and rewarding' better road safety behaviour. ◆

Goal: Ensure sustainable consumption and production patterns



12 RESPONSIBLE CONSUMPTION AND PRODUCTION

ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

BEFORE COVID-19

THE WORLD CONTINUES TO USE NATURAL RESOURCES **UNSUSTAINABLY**

2010
GLOBAL MATERIAL FOOTPRINT
73.2 BILLION METRIC TONS

2017
GLOBAL MATERIAL FOOTPRINT
85.9 BILLION METRIC TONS

ELECTRONIC WASTE GREW BY 38%
BUT LESS THAN 20% IS RECYCLED
(2010-2019)

COVID-19 IMPLICATIONS

THE PANDEMIC OFFERS AN OPPORTUNITY TO **DEVELOP RECOVERY PLANS** THAT BUILD A MORE SUSTAINABLE FUTURE

FROM 2017 TO 2019, 79 COUNTRIES AND THE EUROPEAN UNION REPORTED AT LEAST ONE POLICY TO PROMOTE SUSTAINABLE CONSUMPTION AND PRODUCTION

RISING FOSSIL FUEL SUBSIDIES ARE CONTRIBUTING TO THE CLIMATE CRISIS

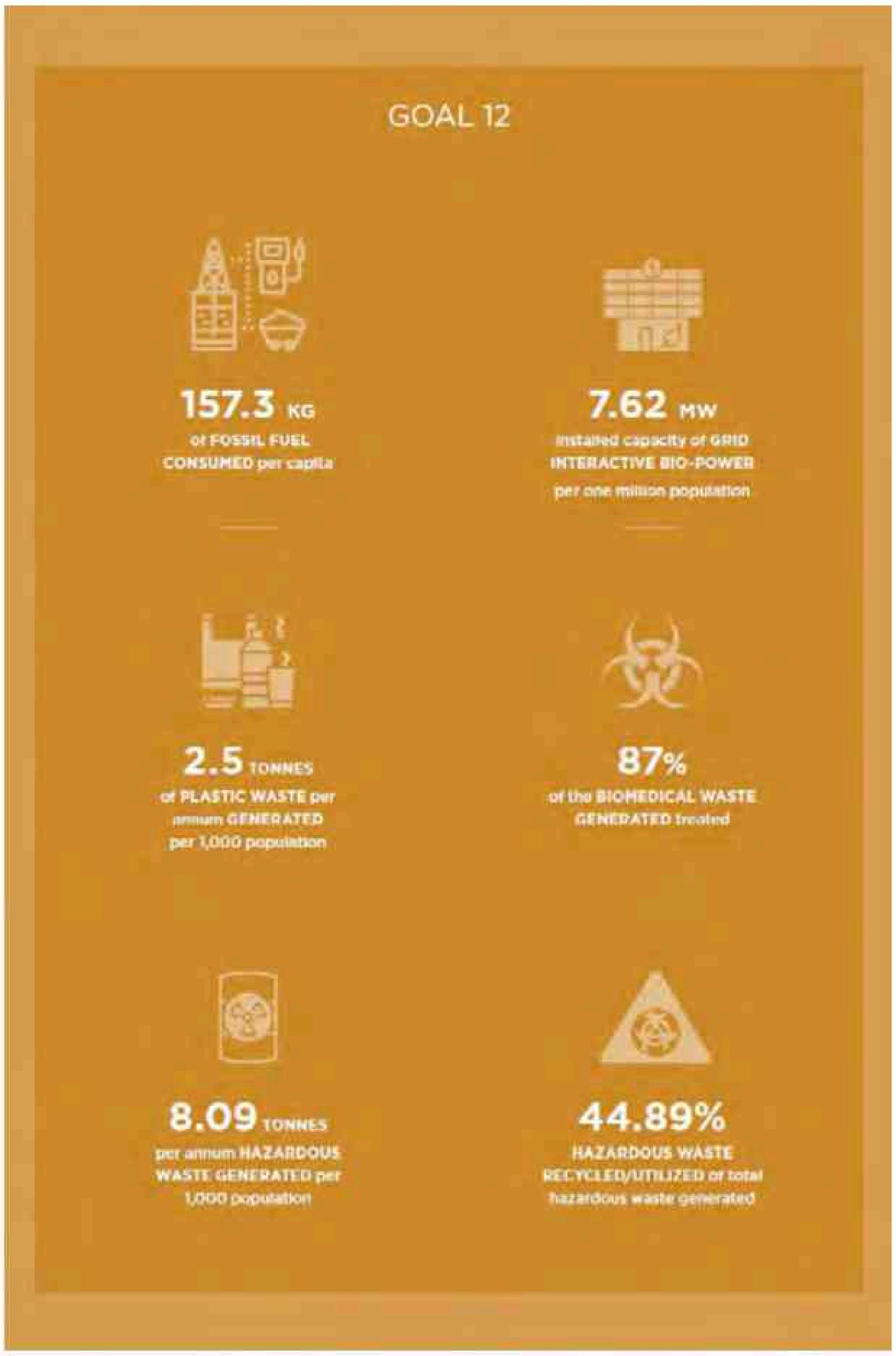
$318 BILLION (2015)
$427 BILLION (2018)

13.8% OF FOOD IS LOST IN SUPPLY CHAINS (2016)

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 12

157.3 KG of FOSSIL FUEL CONSUMED per capita

7.62 MW installed capacity of GRID INTERACTIVE BIO-POWER per one million population

2.5 TONNES of PLASTIC WASTE per annum GENERATED per 1,000 population

87% of the BIOMEDICAL WASTE GENERATED treated

8.09 TONNES per annum HAZARDOUS WASTE GENERATED per 1,000 population

44.89% HAZARDOUS WASTE RECYCLED/UTILIZED of total hazardous waste generated

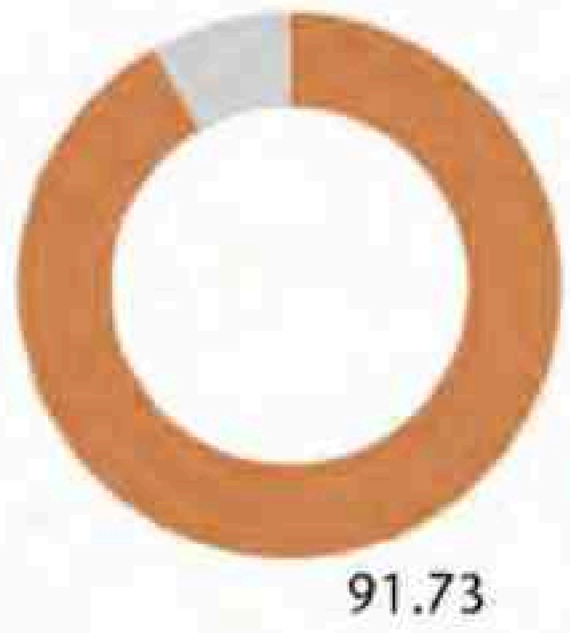
Source: NITI Aayog

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Country Rank

31 /165

Score



UN Dashboard Status

Challenges remain ●

Trend

Information unavailable ●

The UNDP ranks India 31st in the world for Responsible Consumption and Production, making it one of the nation's highest rankings among all 17 SDGs. To continue our progress towards this goal, India has identified 8 key targets to be achieved by 2030:

- Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns
- Achieve the sustainable management and efficient use of natural resources
- Halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
- Substantially reduce waste generation through prevention, reduction, recycling and reuse
- Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
- Promote public procurement practices that are sustainable, in accordance with national policies and priorities
- Ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

Consumption and Waste

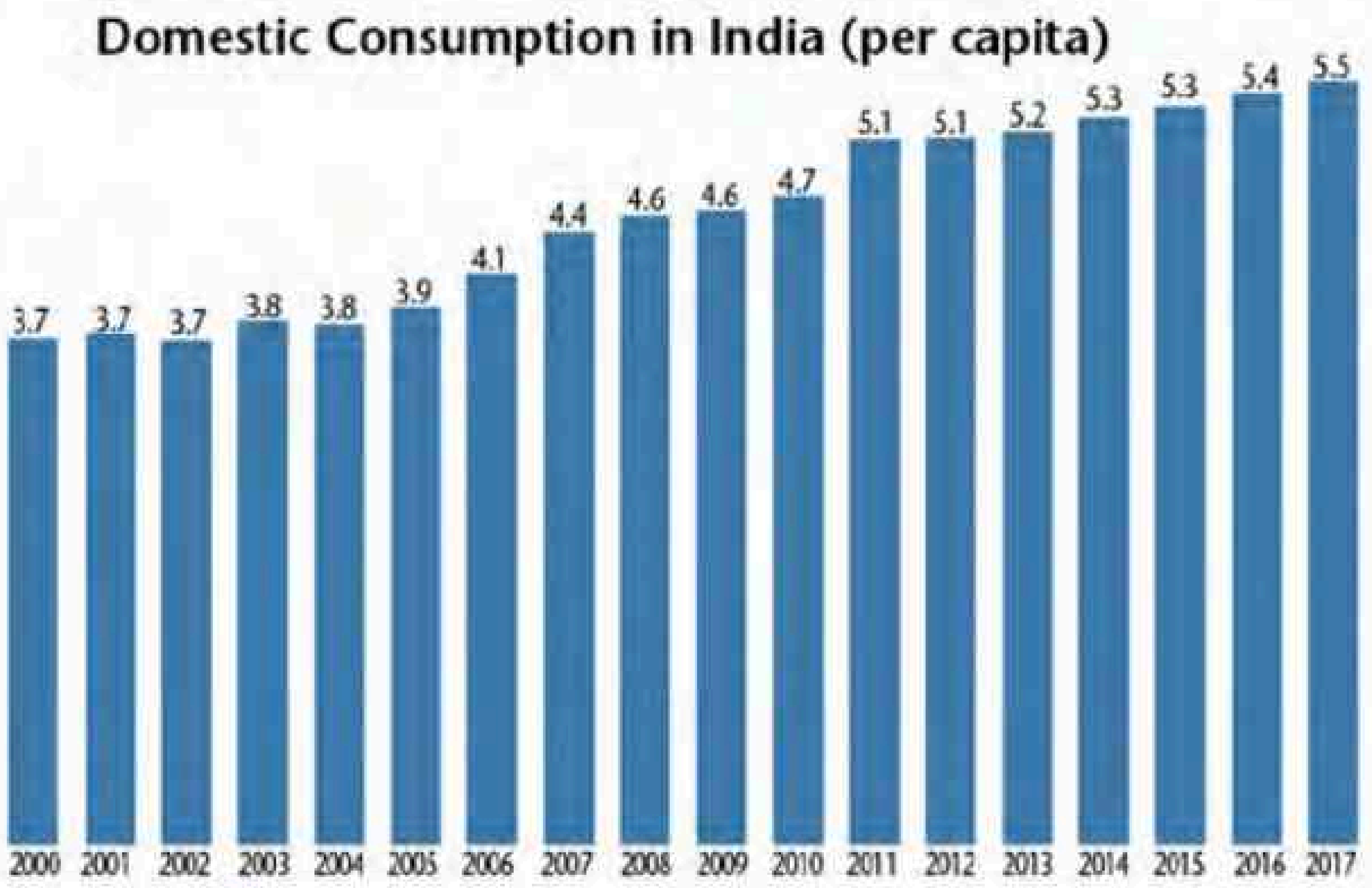
Domestic consumption has been on the rise in India, reaching 5.5 tonnes per capita in 2017, an almost 2-tonne increase since 2000, a 49 per cent increase.

One of the key sources of waste comes from households, where approx. 50 kg of food is wasted per person per year in India; this number is below the world average of 73 kg.

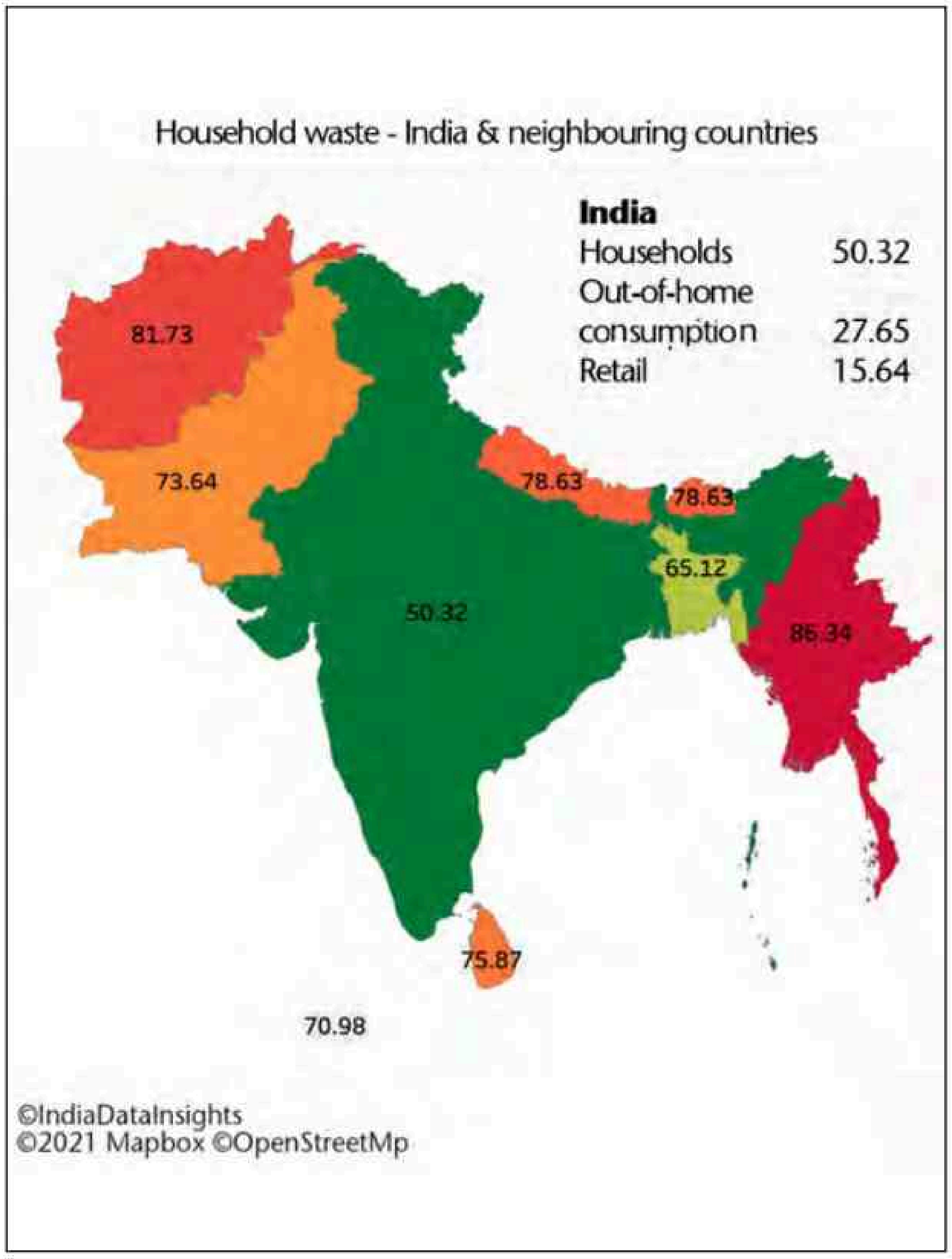
Despite a general increase in consumption across India, hazardous waste has declined, dropping 22 per cent in the last two decades.

Data from the Ministry of Environment, Forest and Climate Change data shows that only 45 per cent of hazardous waste is treated in India. Out of this, 93 per cent of the hazardous waste is treated through landfilling and recycling. Haryana tops all states in percentage of

Domestic Consumption in India (per capita)



Household waste - India & neighbouring countries



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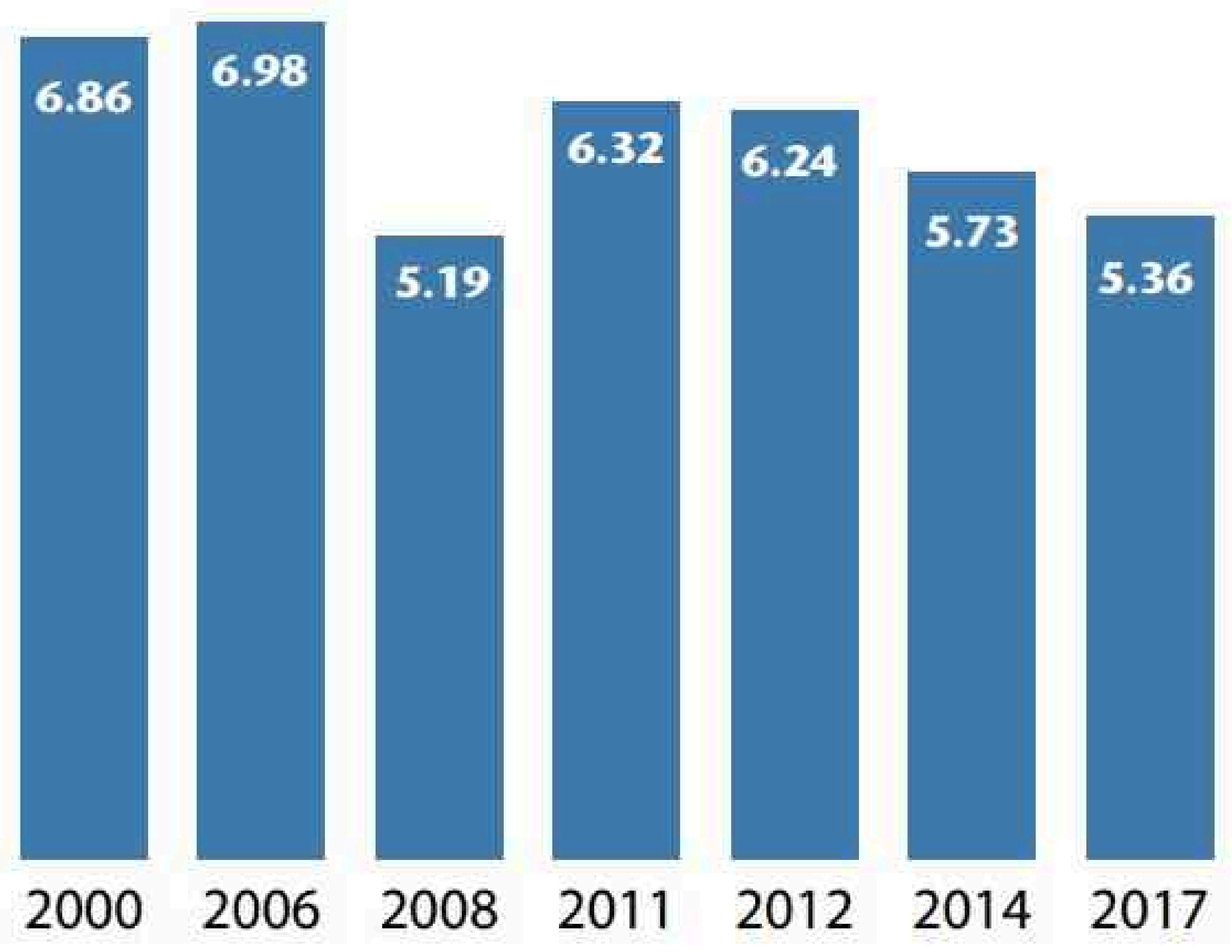


Hazardous waste generation in India

Percentage of hazardous waste recycled 2020

Haryana	177.5	Chandigarh	43.9
Rajasthan	99.2	Puducherry	33.1
Uttarakhand	96.3	Gujarat	33.1
Tripura	93.2	Kerala	32.6
Andhra Pradesh	76.9	BIhar	28.4
Madhya Pradesh	67.1	Assam	20.9
Himachal Pradesh	65.7	Chhattisgarh	19.8
Odisha	62.8	Punjab	18.0
Uttar Pradesh	60.4	Maharashtra	11.6
Karnataka	54.8	Goa	4.3
Telengana	52.3	Jharkhand	2.1
Mizoram	50.0	Meghalaya	1.9
Nagaland	50.0	Delhi	0.1
West Bengal	49.9	Andaman & Nicobar	0.0
Tamil Nadu	48.7	Lakshadweep	0.0
India	44.9	Sikkim	0.0

hazardous waste recycled at 177.5 per cent. Jharkhand fares the lowest among large states with only 2.1 per cent of hazardous waste recycled.

Fossil Fuels

There is a global movement towards rationalising inefficient fossil fuels that encourage wasteful consumption by 2023. In India, fossil fuel subsidies have been reduced by 13 per cent from 2015 to 2019. The world average for fossil fuel subsidies is $55.6 per capita. India is well below the average, at $16.

PER CAPITA FOSSIL FUEL CONSUMPTION (KWH)

2,388	6,284
1990	2018

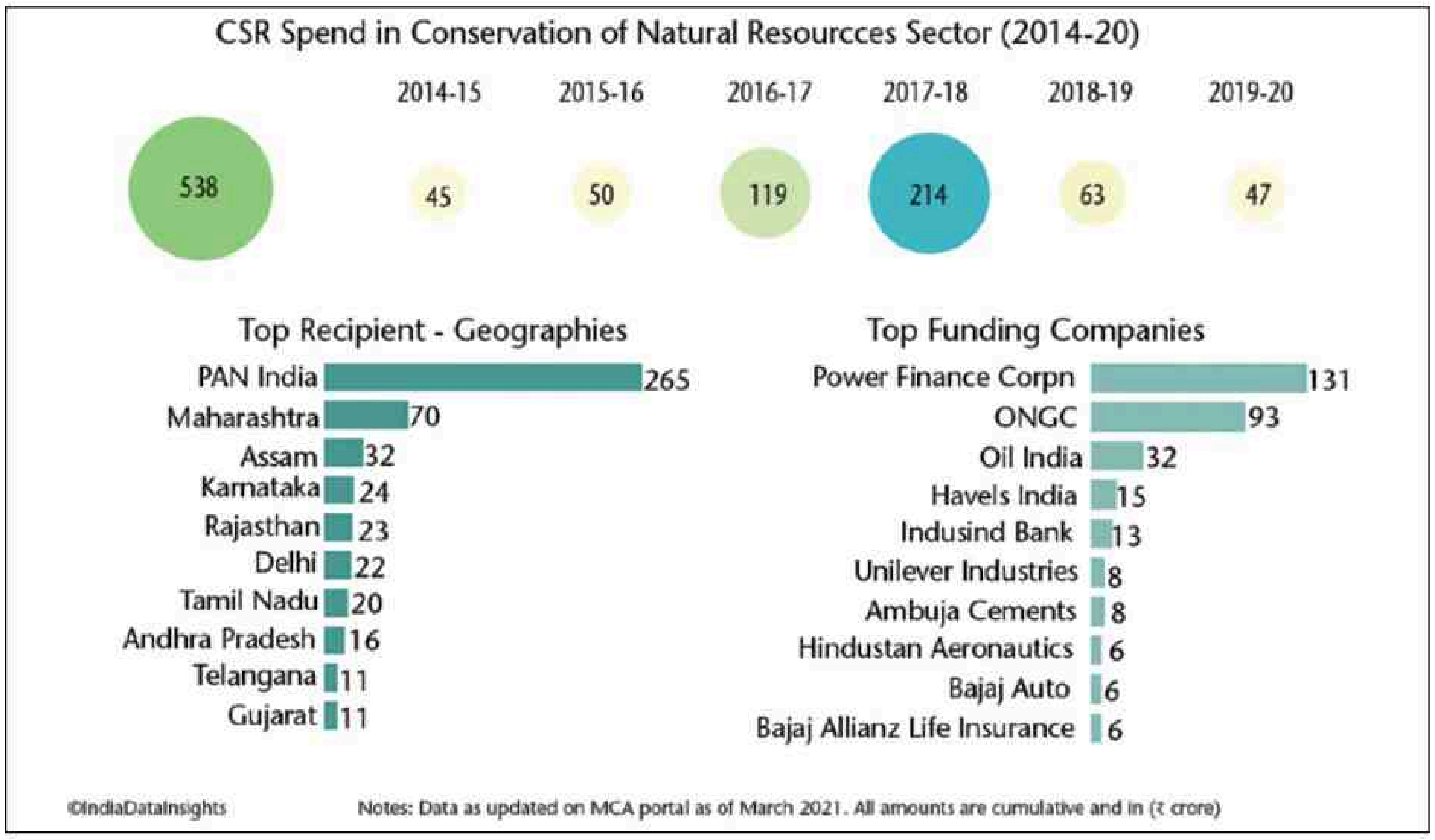
Hazardous waste treated in India (million tonnes)

	2000	2008	2011	2014	2015	2017
Incineration	0.12	0.42	0.60	0.80	0.83	0.28
Landfilling	5.25	2.73	3.32	3.36	3.82	2.56
Recycling	1.43	3.09	3.98	3.25	3.15	1.00

India's per capita consumption of fossil fuels also remains below the world average of 17,730 kWh despite an overall increase in per capita fossil fuel consumption, which has more than doubled from 1990 to 2018.

Nearly 21 per cent of India's total energy supply coming from renewable sources. Of this, wind and solar energy are harnessed the most.

CORPORATE CONTRIBUTION



CSR Spend in Conservation of Natural Resourcces Sector (2014-20)

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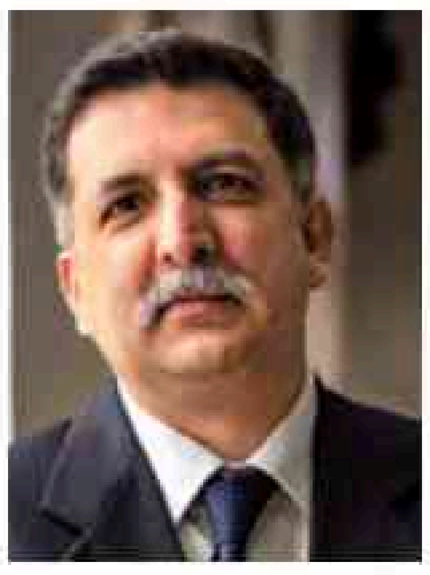
Notes: Data as updated on MCA portal as of March 2021. All amounts are cumulative and in (₹ crore)

A total of ₹538 crores have been contributed through CSR investments in projects that achieve sustainable management and efficient use of natural resources through prevention, reduction, recycling, and reuse. This is one of the targets for SDG-12 for corporates to achieve. This has been done through funding of programmes in conservation of natural resources. Nearly 42 per cent of the contribution in this space has been from two companies – Power Finance Corporation and ONGC, who have contributed ₹224 crores between 2014 and 2020. The top funding industries include Oil & Gas, IT and BFSI, while the top states receiving funding are Maharashtra, Assam, Karnataka, and Rajasthan.

Recalibrating the journey ahead

Political will, business innovation, and societal awareness will help chart this journey



SIDDHARTH SHARMA

As the world moves forward in the decade of action, the urgency and criticality of achieving the SDGs has never been starker. The continuing socio-economic and public health fallouts of the pandemic, social unrests and inequalities, the inescapable climate emergency and our deteriorating planetary health all point in the direction of how much work lies ahead of the global community to deliver on the 2030 promise. Amidst these challenges, we are also witnessing renewed hope and confidence as governments, businesses and civil society come together to forge new partnerships to ensure sustainable development. The Tatas, as a responsible corporate citizen, have always played a part in partnering with the government on national priorities and ensuring that our growth impulses are firmly aligned to the requirements of sustainability and the judicious use of scarce resource.

The magnitude of the challenge posed by our current consumption and production patterns is evident in the stark UNEP findings:

- One-third of all food produced -- about 1.3 billion tonnes – is wasted, while 1 billion people remain undernourished and another 1 billion go to bed hungry.
- Households consume 29 per cent of global energy, contributing to 21 per cent of carbon dioxide emissions, pointing to the significant linkage between consumption and production patterns and the climate change challenge.
- If the global population reaches 9.6 billion by 2050, the equivalent of almost three planets would be required to sustain current lifestyles.

SDG-12 assumes significant importance in the light of these challenges. At its most fundamental level, it is about doing more with less.

Business actions: Businesses depend on natural resources for manufacturing various goods. Securing long-term access to scarce resources, minimising use of expensive resources, reducing waste and pollution, as well as identifying new growth opportunities are some key business drivers relevant to SDG-12. A useful way of mapping the corporate actions needed to achieve SDG-12 is the I=PAT equation that links environmental impact with the three causal factors of population, affluence and technology.

- To meet the needs of a growing population, businesses will not only have to maximise material and energy efficiency but will need to fully transition to circular business models where all waste is seen as resource and re-used at its highest economic potential. Closing the loop of end-of-life products will help decrease the dependence on primary resource extraction and address the challenges associated with waste management.

There are some pioneering examples in this space within the Tata Group. Upcycling of aluminium waste is helping Jaguar Land Rover close the loop of an important natural resource while also significantly supporting the company's decarbonisation goals. Tata Prolife, a ground-breaking after-market product support strategy for Tata Motors' customers, helps extend the useful vehicle life at original equipment-like-performance while minimising product lifecycle costs and waste generation. Tata Steel has embedded circularity principles in business strategy through its Industrial By-products Management Division (IBMD), which is focussed on downstream value enhancement of a variety of steelmaking by-products.

- The impact of affluence is also easy to understand. As incomes grow, so do aspirations. Reducing poverty and inequality, while supporting the growing aspirations of our population, are indeed critical national priorities. From a business perspective, delinking demand from resource consumption through adoption of innovative business models such as shared economy and product and platform as-a-service (PaaS) has the potential to fulfill these aspirations in a sustainable manner, while also opening new avenues for future business growth. One just has to look at Airbnb offering millions of room nights per year without owning any property or Renault which leases batteries to its EV customers instead of selling them. Mjunction, one of Tata Steel's JVs, has disrupted the supply chain of various industrial commodities by leveraging digital technologies to create a highly efficient and transparent materials marketplace.
- The third and final dimension is eco-efficiency through use of breakthrough technologies. The Fourth Industrial Revolution is already demonstrating how technologies can be innovatively applied for responsible growth. At the Tata Group, we are focussed on developing new advanced materials such as Graphene, on human-centric innovative design, clean and affordable energy, electric vehicles and digital technologies, which are expected to usher in the next frontier of responsible growth.

Despite many challenges, we are witnessing an encouraging level of political will, business innovation and societal awareness necessary to chart the journey towards achieving sustainable consumption and production. Leadership commitment to sustainable business values, willingness of supply chain partners to adapt, adoption of a new set of metrics to measure business success and favorable policy support will be critical in this journey. ◆

The author is group chief sustainability officer, Tata Sons

India's sustainability promise

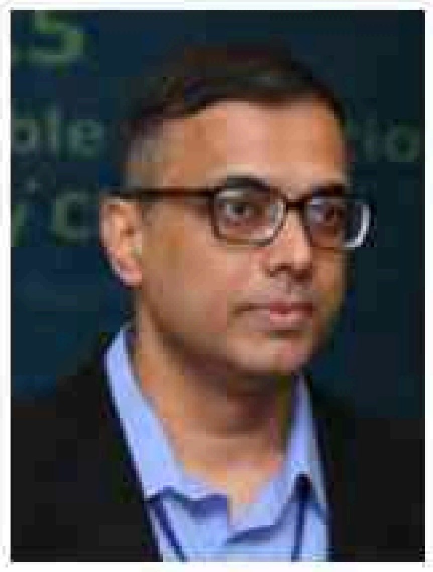
The private sector towards ensuring sustainable supply chain patterns

Over the last century, much economic and social progress was escorted by environmental degradation. With the growing global population estimated at about 8.5 billion in 2030 and 9.7 billion in 2050, the global material footprint (an indicator of the quantity of raw material used to satisfy a country's level of domestic consumption) is overtaking population and economic growth. Consequently, the UNSDG-12, which interlinks nature with other SDGs, underlines 'doing more and better with less', emphasising sustainable consumption and production patterns.

Constituting 18 per cent of the world's population, India has been the third-highest emitter of carbon dioxide, contributing to 6.7 per cent of global emissions. The per capita carbon footprint is 9.56 tonnes per year. With the energy consumption doubling since 2000, India's energy consumption per capita was lagging at one-third of the global average. Further, industrialisation has led to 54.6 per cent of the power generated through coal-fired thermal power plants. However, the scenario has started to change since the 2015 Paris Climate Summit, after India committed to reducing emissions intensity by 40 per cent from the 2005 levels by 2030. In the past five years, the government of India has worked on several programmes to meet the promise of SDG-12. A few of them include the National Policy on Biofuels, the National Recycling Policy, the National Clean Energy Fund and the Carbon Watch programme. In November 2021, while speaking at the global climate meet in Glasgow, the Prime Minister highlighted that 'the Railways has pledged to make itself net-zero by 2030, and this will result in an annual 60 million tonnes reduction in emissions'. The country's non-fossil share crossed 156 GW in December 2021, of the overall power capacity of 390 GW, which is remarkable for India, nine years ahead of schedule. NGOs like the Vasudha Foundation and TERI support this change through research, advocacy, and training.

In 2019, the Ministry of Corporate Affairs upgraded the National Guidelines on Responsible Business Conduct to promote private sector companies to ensure sustainable production patterns. While the government, through policy and regulation, aims to create a positive impact to drive sustainability efforts, corporations help accelerate its impact by creating awareness, monitoring, and governing progress on SDGs. The private sector firms could influence both sides of the supply chain by linking organisational practices to support SDG-12 on their suppliers, internal operations, production facilities, and retailers. The companies that adopt, promote and integrate sustainable practices and publish the related reports play a significant role in meeting India's sustainability promise. These efforts could be viewed under three broad themes: sustainable sourcing, circular economy-based practices and carbon footprint-embedded production.

VIJAYA SUNDER


MILIND SOHONI

Vijaya Sunder is assistant professor (practice); Milind Sohoni is professor & deputy dean, ISB Hyderabad

Sustainable sourcing: Sustainable sourcing integrates social and environmental performance factors in selecting suppliers by the corporate. It enables suppliers to work towards sustainable production for economic benefits and long-term supply chain relationships. The lack of sustainable sourcing could lead to hazardous effects evident from the case of Apple and Hewlett-Packard that engaged suppliers working in unsafe environments, and that of Nike that used suppliers that were polluting the rivers of China with their operational waste.

Several Indian companies and global firms based in India have realised the value of sustainable sourcing. For example, Nestle India's sustainable sourcing programme for spices mandates keeping carbon in the soil, farm biodiversity practices, reducing agrochemical inputs, increasing soil capacity to keep water and adding organic matter from its suppliers of chillies, cumin, coriander and turmeric. Similarly, Hero MotoCorp has launched its Green Partner Development Programme to ensure that its suppliers and suppliers' suppliers implement actions around environment-related dimensions in their operations. As of 2021, they helped 186 suppliers of Hero MotoCorp to monitor the pollution load, reduce water and energy utilisation. While sustainable sourcing may be time-consuming as it involves assessing suppliers on sustainable practices, firms need to realise its long-term value. "There is no shortcut for long-term sustainable sourcing," says Juvencio Maeztu, CEO, IKEA India. "So, sourcing takes time and, in that sense, we need to build technology and a sustainable way to source raw materials." Successful implementations of technological advancements to facilitate sustainable sourcing are evident from the stories of Walmart, FedEx, and H&M that Indian firms could potentially leverage.

Circular economy based practices: According to a study conducted by Ellen Macarthur

Foundation, circular-economy-based practices that include reuse, recycle, repair and refurbish have an opportunity worth ₹40 lakh crore in India. It is estimated that 140,000 tonnes of municipal solid waste are produced every day, which could generate over 200 MW of energy. International brands like Tesla, Volkswagen, and Intel have implemented circular-economy-based practices and led the pack. We see three types of opportunities in this area for Indian corporations.

The first is to leverage the natural resources for enabling circular-economic-practices. One of the first global firms that implemented this thinking in India was Hitachi India, which harnessed solar power and waste to energy technology plants, reducing fossil fuel generation dependency.

The second is to recycle waste or used products to enable them into a newer form that could fit into another purpose. Ikea's buyback programme, Puma's plastic from garbage, and Johnson Control's recyclable batteries are some global examples in this area. Several Indian firms have been taking initiatives to promote such thinking. For example, Infosys implemented robotic solutions and artificial intelligence-based systems for expedited waste segregation and drones for real-time monitoring of landfills. Another noteworthy example is Tata Steel, which has achieved 100 per cent slag utilisation across its operations. Its products, such as Tata Nirman and Aggreto are used in road construction, fly ash brick, and clinker making. The processed scrap had been used for downstream steel products with Tata Steel's scrap processing unit. Alongside Tata Steel, almost every brand under the Tata Group, including Tata Chemicals and Tata Motors, works under their circularity framework: Regenerate, Share, Optimise, Loop, Virtualise and Exchange (ReSOLVE). Similarly, Raymond group, in collaboration with Reliance Industries, recently launched a range of eco-friendly fabrics under the name Ecovera. They recycle post-consumer waste PET bottles using bio-fuels and energy-efficient processes using green fibre technology.

Third, the refurbish or repair opportunity exists as a market to explore newer business ventures. According to MAIT, the apex body representing the electronics manufacturing sector in India, the repair market in electronics alone can generate revenues worth $20 billion annually. The recent acquisition of F1 Info Solutions, a mobile repair chain by the e-commerce giant Flipkart, and Yaantra (formerly Gadgetwood) raising $3.1 million from Carpediem Capital and Duane Park, stand as testimonials for other start-ups and established private sector firms to see the opportunity in the unorganised sector of refurbishing and repair.

Carbon footprinting embedded production: Carbon footprint indicates the amount of carbon dioxide and other greenhouse gases produced. While the greenhouse effect is essential, when it becomes stronger, it could make the earth warmer than usual implying climate changes. The Swachh Bharat programme has created a platform for dry waste management, segregating it from bio-degradable waste. Several companies like OLX.in, Google India, Hindustan Unilever, and Amazon India integrate green practices in day-to-day routines to reduce their carbon footprint. However, opportunities exist for Indian corporates to embed their production systems with low-carbon emissions. For example, Alcoa recently introduced ELYSIS, based on the world's first carbon-free aluminium smelting process. The aluminium production system has been designed to produce oxygen to replace all direct greenhouse gas emissions. United Airlines uses sustainable aviation fuel in its regular operations, mixing it with conventional jet fuel in the same engine. Other examples include Honda's hydrogen fuel-powered vehicles, Tesla's e-cars, and associated manufacturing processes. Indian firms should see an opportunity to leverage these technological advancements for carbon footprinting-embedded production systems.

In summary, we recognise the efforts by Indian private sector firms to contribute to SDG-12. Alongside the efforts by the government, the emerging view of corporations to support sustainable production and consumption patterns is a positive indication to build an ecosystem to keep India's promise to sustainable goals. There exists an opportunity to advance this thinking by deploying sustainable sourcing, circular economy-based practices and carbon footprinting-embedded production across all other private sector firms as well. ◆

Role of sustainable finance

Reconnecting SDGs with broader economic initiatives

SANTOSH JAYARAM

It has been six years since the SDGs came into force. Any gains that have been made so far are under the cloud, as the global pandemic continues to beset our world. The impact has been unprecedented and the recovery has not been equitable and even. But some silver streaks of community resilience demonstrate to us that we still can hope for a brighter future.

As we re-emerge, we have the opportunity to build back better. The wisdom the pandemic imparts is not to look at SDGs in isolation. For instance, much before discovering the zoonotic origins of the SARS-COV2 virus in Wuhan, China, it was already predicted that deforestation and illegal wildlife trade would bring diseases that cross from animals to humans and become a pandemic and challenge the existing health infrastructure. This was not a 'Black Swan' event, but more of a 'Grey Rhino' charging at us, and we still ignored and are facing the consequence. We can't ignore the next raging rhino and our progress in SDGs is our best defence. Every action we initiate intertwines through multiple SDGs. If we progress in isolation, the first six SDGs will have a negative impact on SDG 13, 14 and 15, unless we figure out SDGs 7 to 12, which are the balancing ones right in the middle. Especially SDG-12 is like the fulcrum of a see-saw between human prosperity and ecological sustainability. It is the key to de-couple environmental pressures from economic growth. The right pathway is to improve resource efficiencies and ensure fair supply chain practices while addressing consumption patterns.

Sustainable finance can be a big potential lever in driving SDG-12. Technology and innovation to foster resource efficiency will be a rational investment choice. When the planetary boundary thresholds are being tested, investing in any operation causing emissions and producing waste will be high-risk. Many traditional production processes will be challenged by developing technology and innovative processes. Since many new ideas are still in the test platforms and tomorrow's big transformations are still in the labs, it is also a significant opportunity for investors to spot the multi-bagger in the sustainable future.

On the sustainable consumption side, the lack of momentum until now is not the consumers' failure but the companies' failure to figure out how sustainability translates to value for consumers. On the B2B side, the tipping point has crossed, and there is a demand to demonstrate sustainability whether you are a product-oriented or a service company. On the B2C side, almost all surveys point out that a substantial majority of the people across countries are willing to pay for sustainability. What is lacking is avenues and assurances. There are fewer options on sustainable products, and even in the ones claiming to be sustainable, they must improve on their traceability to further the consumer's confidence. The millennials and Gen Z are reaching a phase of life where their influence would have a material impact. There will be a shift of power that is starting to happen to the hands of millennials during this decade, and that can be the real game-changer. Even when companies talk about sustainability, they talk about what they are doing, but not about the customer's impact. The power to influence needs to be communicated to the consumer. There is a significant role the e-commerce, retail and search engines have in this regard.

Banks and NBFCs have their roles and financing sustainable products needs to factor the true cost or value of the product that covers all externalities. There is a need to factor the cost to the environment and the social cost in designing financial products. Many of these externalities will be forced to be internalised through regulatory changes or stakeholder pressure. Take the case of e-waste or plastics; the final disposal now must be factored into the cost dynamics by companies because of regulations in many parts of the world. There is a big opportunity to design the right financial products aiding consumers to choose sustainable products.

I would also bring in the role of the right measurements. Affordability and aspirations drive consumption and how we gauge our progress through measurements like GDP is not helping. In 1968, Robert F. Kennedy made a speech at the University of Kansas, 'It (GDP) counts air pollution and cigarette advertising and ambulances to clear our highways of carnage… It counts nuclear warheads and armoured cars for the police to fight the riots in our cities…….' And he ended up saying, 'It measures everything in short, except that which makes life worthwhile.' Is GDP a measure of mere economic activity or social well-being? We need to use the correct measurements and indicators to measure our progress.

Proper focus by the economic brains and the resultant financial system to foster an era of sustainable production and consumption is the key to our progress on SDGs. And this will lead to a world that is more equitable and sustainable. ◆

The author is global head, sustainability, HCL Technologies

Deliver justice to ecosystems

A business model explores gainful reuse of treated wastewaters and waste biomass

SHYAM R. ASOLEKAR

Historically, India has walked the path of Sustainable Development. However, dimensions of ecosystem conservation and community empowerment have been in mainstream politics in India only over the past 25-30 years -- following the Brundtland Commission Report (*Our Common Future*).

Although India has made progress on many frontiers including industry, agriculture, health and infrastructure, the disparity and divide between India and Bharat is only widening. We have been witnessing unprecedented exodus from villages to cities. How effectively have we handled this massive exodus? It would be easy to wish away urban slums and poverty, but when will we stand up for those who have been losers over the past 75 years?

A school of thought hopes industrialisation will enable secondary and tertiary growth for all through a trickle-down effect. Others argue industrialisation is inherently urban-centric and induces migration to cities. The resulting domino effect houses rural poor in urban slums – who become poorer, forced to live in sub-human conditions.

The Indian sub-continent is agrarian. More than half its population lives in nearly 500,000 villages. By 2021, about 36 per cent of her citizens were in towns and cities. Even more disheartening is the fact that, after 75 years of independence, women continue to be the most oppressed and neglected group in these areas. These imbalances exacerbate environmental and ecological impacts.

Where do we go from here? The stated challenges should be tackled through developing action-plans on three fronts:

- by promoting environment-friendly sustainable industrialisation in cities and rural areas;
- enabling inclusive growth in rural agricultural economy; and
- empowering socially and economically weakest sections – especially women in both locations.

Over the past 20-30 years, governments attempted to institutionalise processes of urbanisation and industrialisation to tackle externalities. But will such transformation be possible without the involvement of community-based organisations and NGOs in particular? Who do we entrust the role of a conscience keeper or watchdog? It is essential to ensure access to respectable work, health facilities and education to inspire a collective dream of common good. Only such an empowered society will foster a democracy for inclusive growth with well-meaning citizens in all walks of life.

Three-pronged strategy: It is becoming increasingly clear that growth of our industry and agriculture will be constrained by the quantity and quality of water and energy we access. Our options are: fetch water from far removed locations, drill deeper down into aquifers, or link rivers; recover water from ocean/ brackish waters or recycle treated municipal or industrial effluents; or develop innovative industrial and agricultural processes with smaller water footprint.

Barring some honourable exceptions, Indian industry and farmers have not seen the R&D community and academia as their 'partners in businesses'. Costs are equally important determinants. Even large businesses and industries source technologies and expert consultants from overseas suppliers due to mindsets. Many of them are not even aware that they are losing their hard-earned profit as well as freedom. India therefore remains a net importer of technology and management advice.

The counter-intuitive aspects of energy and water conservation establish the antagonistic relationship between them. Several water recoveries, as also recycle or reuse approaches are energy-intensive. Processes, products or services with smaller energy footprint are often water-intensive, pollute significantly and therefore economically and technologically unviable. Thus, it is not possible to simultaneously secure energy and water gains.

Empowering India: Four specific interventions could possibly be game changers:

- improving access to appropriate technologies;
- providing adequate finances;
- incentivise registration and payment of benefits to workforce in farms and industry; and
- minimum filing of multiple returns and hindrances created by multiple institutions.

Current sustainable development models have shifted the paradigm from traditional approaches of lake restoration as a 'potential cost to economic production' to an 'ecosystem service function' to be derived from revitalised urban green-blue spaces. A multi-dimensional 'business model' inspired by the *Circular Economy* approach is recommended here, which relates to home-grown resources and makes local workforce (especially women) the direct beneficiaries inspired by location and nature-centred solutions.

The author is M.P.C.B. Chair Professor, Indian Institute of Technology, Bombay

Homogenisation, normalisation or universalisation, which infuse neutrality in governance could hurt the weak in society and increase drudgery. Sector-wise 'business models' need to be developed for cottage/ small/ medium-scale industries, as well as farming and marketing systems. Protection of biodiversity, improvement of sustainability and fair use of ecosystem services for the benefit of community and ecosystems should be the governing principles of this alternative approach. Exclusively market-based approaches merely induce growth without delivering justice to the poor and ecosystems.

Treated wastewaters profitable: The government stipulates that every urban dweller be supplied 145 to 185 litres of water per day and villagers 40-50 per cent equivalent of the former – which is logical. However, in reality, potable water is grossly inadequate; ironically, compromised by the growing population. The Central Pollution Control Board in March 2021 reported the generation of sewages in urban India at 72.37 billion litres per day. In contrast, the installed sewage treatment capacity in urban India is 31,841 mld, of which actual operational capacity of sewage treatment is merely 26,869 mld.

Research at IIT Bombay and elsewhere has established the potential to recover about 50-70 per cent water from domestic sewages. In fact, development, manufacturing, operation and maintenance contracts of such decentralised smart 'packaged treatment plants' can make for big business. This can be realised using India's robust manufacturing base and her truly competent engineering and management professionals. Urban Indian families, housing societies, gated institutional campuses, hotels, restaurants, malls could potentially use 15-30 million of such packaged treatment plants.

Biomass-based products and fuels: Collection, processing and gainful utilisation of biomass from urban solid wastes, gardens, wastewater treatment facilities, forests and agricultural activities can be an additional game changer. Generally, biomass separated after harvesting and from forest ecosystems are typically used (in a limited way) as fuel in rural communities or simply burnt or dumped in low-lying areas or left unattended, causing several environmental problems. Focused R&D efforts should help valorise a variety of waste biomass to develop value-added products.

One such product is bio-char derived from slow pyrolysis of harvested biomass. Low-temperature bio-char could be used for wastewater remediation. Nano-particles separated from these bio-chars have special properties and are being experimented with for preparation of industrial materials of extremely high value. Waste biomass is typically converted into briquettes and used as 'refuse-derived fuels'. With innovation, biomass and bio-chars can be used as wood-substitutes in low-to-medium strength carpentry and construction applications. Incorporation of industrial hazardous and solid wastes as well as construction and demolition wastes has also given excellent results.

In conclusion: Micro-pollutants in treated wastewaters (undigested and residual pharmaceuticals, enzymes, hormones, personal care products, farm chemicals, *etc*) compromise their reuse-potential – especially their high-value applications. Similarly, non-segregated and chemically contaminated biomass and solid wastes may foreclose their high-value applications. Therefore, collection, processing and gainful utilisation of wastewaters and biomass from diffent sources can indeed become feed-stocks for waste processing enterprises. This is possible only when an integrated management strategy is employed from source of waste generation to reuse destination. Huge profits can be earned and green jobs generated. It is important to also reach the unreached through robust mechanisms of benefit transfer and sustain transformations through these principles of circular economy. This will strengthen the measures adopted by India to meet her commitments in SDG-12: *Responsible Production and Consumption*.◆

Committed to people & planet

CenturyPly has taken a holistic approach to serve society

KESHAV BHAJANKA

According to a survey, CSR spending in India was cumulatively calculated as ₹20,150 crore in FY19, followed by ₹8,828 crore in FY21, showing a sharp decline in the CSR spend of India Inc. While the pandemic has made our economy a bit stringent in every aspect, the need for contributing to CSR has increased more than ever before. In such a scenario, the Government of India's decision to roll out a mandate to furnish a comprehensive report on Indian corporate CSR activities will help in developing a detailed and systematic database of the CSR initiatives being taken in our country, while also paving the way for streamlined action.

Century Plyboards (India) Ltd has remained consistent and dedicated in serving society and has undertaken a plethora of initiatives to aid the environment and humankind.

With responsible living becoming the need of the hour, consumers expect brands to step up and contribute to the planet we inhabit. 'Plywood' is usually associated with the felling of trees. CenturyPly, however, has been fighting deforestation, changing from 100 per cent forest timber as raw material to 90 per cent plantation timber, which eventually compensates the loss of resources and sustains ecological balance – an effective practice to maintain the oxygen and carbon dioxide ratio in the atmosphere, thus keeping a check on climate change.

In FY20, the company distributed 22.83 lakh tree samplings among 3,057 farmers – part of a holistic plantation drive that involves farmers appreciating them and learning to increase produce. CenturyPly also supports sustainable manufacturing by providing genetically improved, pure, high yielding and disease resistant clones of eucalyptus and poplars to farmers under the Century Plantation Project in Pragati Biotechnologies in Hoshiarpur, Punjab. Aligned with the Government of India's vision of Van Mahotsav, in 2021 the company pledged to plant 10,000 trees in the regions of West Bengal and Haryana, under its existing 'Century Plantation Project' over the next one year. This action on sustainable manufacturing has significantly reduced its carbon footprint while safeguarding the earth's biodiversity. Additionally, CenturyPly has deepened its commitment to renewable energy, investing in rooftop solar panels across manufacturing facilities.

While CenturyPly is focused on sustainability, CenturyLaminates is devoted to community. Believing that beauty is not skin deep, borne out by the attributes of a wide range of laminates, Century Laminates advocates that: 'Beauty is what Beauty does'. Which is why, it is engaged in providing support for organ donations in association with Mohan Foundation and driving breast cancer awareness in association with Tata Medical Centre.

CenturyPly aims at bettering human life. The pandemic-induced lockdown struck many families in different ways and to bring a solution to the same, the company started a unique Family Services Department (FSD) which was introduced to enable effective management of emergency service availability like oxygen, etc for employees and their families, especially at a time when direct service was practically not available. Cerebral Palsy among children is a major health concern in our country. Keeping this in mind, Century Ply takes a conscious step towards aiding children suffering from Cerebral Palsy by providing strong support through the Morning Glory School.

In healthcare services, CenturyPly is associated with the Marwari Relief Society, Dr Bholanath Chakraborty Memorial Trust, Nature Care and Yoga Centre, Tata Medical Centre, along with maintaining a disaster relief plan in the city. In association with Calcutta Pinjrapole Society, the company has provided support for building a new hospital for the treatment of cows at Sodepur. CenturyPly is also focused on education – the Company adopts Ekal Vidyalayas in tribal areas, provides educational support to the girls for school/college/higher studies and vocational training, along with offering financial assistance for educational infrastructure development. Some of the educational institutes that the company has tied up with are Friends of Tribal Society, Udayan Care, Kurpai Unnayani Society, etc.

> **Aligned with the Government of India's vision of Van Mahotsav, in 2021 the company pledged to plant 10,000 trees in the regions of West Bengal and Haryana**

CenturyPly has always been at the forefront of being innovative and self-reliant. Likewise, it has created a niche benchmark to be loyal and committed and give back to society. A brand that is distinguished in its quality of innovation, trust and service in the industry, with its constant endeavour for the empowerment of the nation is optimistic about seeing a better world – with the promise of protecting the world for the coming generations. ◆

The author is Executive Director, Century Plyboards (India) Ltd

Time to act responsibly

Overuse of resources will be detrimental to the future of earth as early as 2040

STERLITE TECHNOLOGIES

Building a better world

Eco-compliant infrastructure at STL

The current IPCC report on Climate Change is the latest in a series of reminders on how overuse of resources will be detrimental to the future of earth as early as 2040. There has been a persistent call to action from various quarters, advocating a much-needed balance between economic and ecological interests. The focus of this has mainly been that profit and its effect on the environment need to go hand-in-hand, led through robust environmental, social and governance mechanisms, across a corporate value chain, beginning with sourcing and percolating down to customers, waste handlers and even communities.

Sterlite Technologies Ltd (STL) has laid the foundation of a robust and eco-compliant infrastructure. Its sourcing policies are seamlessly aligned with international requirements like Restriction of Hazardous Substances (RoHS) and Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) to ensure unabridged quality thresholds. Its value chain partners are also assessed on their commitments towards the environmental and social dimensions of business.

Co-innovation is ingrained in STL's corporate DNA. Over the years, there have been quite a few milestones, a significant one being the SURE (sustainable, user-friendly, reliable, efficient) packaging based on its 4R (Recycle, Reuse, Reuse, Remove) approach. This alternate approach to packaging has the potential to save over 8,000 trees and reduce 5,300 tonnes of CO2 emissions.

Intelligent systems The STL Academy has been training professionals on network deployment – the best practices to optimise the installations' life, performance, and environmental signatures. Considering that India is one of the most water-stressed countries worldwide, STL has ascribed strategic importance to the water positivity of its operations and aims to be water-positive across all its global locations by 2030.

Its water budgeting and management is based on intelligent systems that consistently monitor STL's business processes, recycle wastewater from manufacturing, and reduce freshwater intake. The recycling approach enabled the company to avoid 107,000+cu m freshwater intake and recycle 1,41,000+ cu m of it over the last one year. These efforts were reinforced through programmes aimed at water resilience, in partnership with the World Bank WRG2030 group. STL has created a water replenishment potential of over 1.40 million cu m through the programme, while building awareness of the judicious use of water.

STL intends to address Goal 12 and 13 (Responsible Consumption & Production and Climate Action) of UN SDGs in totality. It also focusses on co-operative industrial waste management. Invoking its cross-industry partnership with suppliers and waste buyers, the company commenced its Zero Waste to Landfill (ZWL) journey in 2018 and, by 2020, became the world's first optic fibre and cables manufacturer to be ZWL certified by Intertek for its Indian manufacturing locations. It has set a course for a 100 per cent ZWL certification of its global manufacturing facilities by 2030.

STL has implemented ZWL as a multi-dimensional strategy, as it not only ensures responsible use of resources and mitigates climate change, but also addresses India's national priority of efficient waste management. It involves the processing of industrial wastes like optic fibre, optic fibre cables (OFC), low smoke zero halogen (LSZH), plastics, wood, and various materials through conversion to energy or reuse as byproducts in other organic or industrial cycles.

Through its ZWL efforts, STL has till date diverted over 135,000 tonnes of waste from landfills. Today 97 per cent of the waste generated is either reused, recycled or co-processed.

This approach is also used through STL's community programmes. In Aurangabad and Pune plants, compost is used for manure for plantations, not only affording the company significant cost savings, but also ensuring efficient use of waste. ◆

GRP LTD

A sustainable journey

GRP Ltd, established in 1974, is among the most recognised manufacturers of reclaim rubber from used tyres, upscaled polyamide from nylon waste and engineered products die-cut from end-of-life tyres. The company has four manufacturing units across India at an installed capacity to handle 75,000 tonnes per annum to service the needs of the global polymer industry and help save valuable resources of the planet.

GRP operates five business verticals – reclaim rubber, industrial polymers, custom die forms, retreading and polymer composite.

GRP is the first company in India to design, fabricate and install a plant and machinery to make reclaim rubber from completely indigenous components. The company had innovated uses of reclaim rubber for various parts of a tyre, thereby increasing scope of usage of reclaim rubber in the tyre industry.

GRP also developed an in-house process to recover nylon fibre from end-of-life tyres. Nylon fibre, embedded with rubber, is subjected to series of mechanical operations to separate rubber and nylon. The company has invested substantially in R&D to recover nylon (polyamide) – a valuable engineering plastic – out of the waste tyres.

It converts end-of-life tyres to design products, used for civil & agricultural applications. Custom die forms are meant to absorb vibrations in heavy equipment and, for insulation against sound. GRP-C-DF has produced these products in collaboration with leading North American companies.

The company has a joint venture with Marangoni SPA (the world's leading tyre retreading company, with a legacy of 70+ years) for retreading. Polymer composite is produced using 100 per cent recycled rubber and plastic. The products are eco-friendly, stronger and more durable than wood and also tough and resistant to fluids, mud, oil and UV rays. These products find application in sectors, such as automotive, defence, construction, oil & gas and furniture. Polymer Composite is a cost-effective option, as it is made from 100 per cent recycled materials. It is insect- and termite-proof, durable and long-lasting.

Cutting greenhouse gas emission

GRP has taken active steps to address the issues such as water scarcity, pollution, climate change, and other problematic global water trends, which pose major challenges to businesses now and will continue to do so in the years ahead, through its responsible consumption and production practices.

By reducing the need for fossil-fuel generation, GRP's grid-connected solar plant cuts greenhouse gas emissions (and other air pollution). Power costs contribute to the bottom line of GRP. At present the average power cost across the locations ranges from ₹7 to ₹8.5 per unit. GRP is spending out ₹3-4 crore in terms of its electricity bills each month, which measures up to 11 per cent of the total manufacturing cost.

GRP has commissioned its first roof top solar power plant at SL 02, covering an area of 3,200 sq m of the plant roof top. The capacity of the plant is 400 kWp.

GRP converts end-of-life tyres to design products

The plant has achieved cumulative savings of ₹7.8 lakh in the current financial year and is expected to accrue a cumulative saving of ₹40 lakh in the coming financial year. The plant has saved 52 tonnes of carbon emissions so far and is expected to save 290 tonnes by the year end. Auto-claving in manufacturing line helps GRP to reduce water consumption in one year up to 356,750 litres and furnace oil up to 51,372 kg. Also, this system has improved conditions at a lower cost. GRP has also enhanced usage its green practices to further expand its contribution in putting the SDGs to use for benefit of the community where it operates. ◆

ECOSOUL HOME

Giving every home a greener soul

The use of disposable plastic plates and glasses during picnics or parties may raise the question: what is the environmental impact of using disposable dinnerware? More than 80 per cent of marine litter is made of plastics, 70 per cent of which originates from disposable items. So, plastic disposables need to be replaced with disposables made from renewable materials.

The environmental impact of disposable dinnerware can be ascertained by the article in National Geographic: Pregnant whale died with 50 pounds of plastic in her stomach. Further, the 100 largest polymer producers all continue to rely almost exclusively on 'virgin' (fossil-fuel-based) feed-stocks.

While the entire world is drowning in plastic, in 2016, India achieved the dubious distinction of being the world's second largest plastic waste generator, at 26.3 million tonnes per year. The government of India has taken notice of the situation and has passed laws to ban make, sell or use of single-use plastic items like plates, cups, straws, trays and polystyrene from 1 July 2022 onwards.

An important part of the plastic waste corresponds to the disposable cutlery and crockery such as plates, cups, forks, knifes, among others, used in many life situations such as at

EcoSoul products are chemical free, toxin free and fully compostable

parties, restaurants, hotels or at work cafeteria. A potentially good option to eliminate plastics involves the use of organic residues, particularly from agricultural byproducts (like areca palm leaves or sugarcane bagasse or from food waste). Besides, contributing to the valorisation of low-value residues, it also contributes to a more circular and sustainable economy, as the residue has a renewable nature and is compostable.

Affordable alternatives As young parents, co-founders Rahul Singh and Arvind Ganesan at EcoSoul Home passionately believed in an old saying: "We do not inherit earth from our parents; we borrow it from our children." In 2020, EcoSoul Home began its journey with a mission to give every home a greener soul.

Consistent supply of areca leaf sheaths, coupled with rising consciousness in society towards usage of eco-friendly products have paved the way for the emergence of rural based areca leaf product manufacturing ecosystem. Areca growers reaped a net profit of ₹7,120 per acre by selling leaf sheaths to manufacturing units. The industry has generated employment ranging from two labourers in small units to 250+ labourers in larger units. Women labour force consist of 55-78 per cent of the total workforce in the palm leaf products industry.

EcoSoul Home works directly with more than 15 large and small contract manufacturers in India, to source these products. This leads to income maximisation at grassroots level and a fair price for the efforts of small business owners in the industry.

EcoSoul Home products not only have significantly contributed to the local economy and women empowerment, but most of the EcoSoul Home's sales come from exporting products from India, thus contributing to the thriving Indian exports sector. EcoSoul Home, over the past year, has exported more than $1.5 million in gross merchandise volume of eco-friendly products from India. ◆

INDO COUNT INDUSTRIES

Reaching for the sky

Indo Count's CSR project Gagan aims to increase the income of cotton growing farmers

As a responsible textile corporate, Indo Count is committed to sustainability, as it spearheads a future of better textile practices for the sector and is also passionate about educating farmers in order to aid them to increase their income. And Gagan, its CSR project, promotes sustainable textiles targeting to benefit all its stakeholders, with a focus on increasing the income of cotton growing farmers in selected areas in Maharashtra.

The Gagan project was started in 2019-20 in Warora tehsil, Chandrapur District, Maharashtra, in partnership with CITI CDRA, which is a technical resource agency in the area of cotton farming and production improvement. The aim is to help farmers follow sustainable means of cultivating cotton following the principles of 'better cotton initiative' (BCI).

Reaching out to farmers Indo Count further expanded the project in two more districts in 2020-21. Under the initiative, it worked with farmers, scientists, researchers, trainers and agricultural institutions to impart package of good agriculture practices (GAP) for bettering the yield of cotton. As part of interventions, Indo Count is reaching out to more than 4,000 farmers and helping them to adopt GAP. Indo Count, with the help of CITI CDRA, ensures that the best of well-researched information and related knowledge/practices reaches farmers for yield improvement, with the entire endeavour focussing on three key areas.

The first one is plant protection, which focuses on creating mass awareness about the pink ball worm and mitigation measures for tackling extreme weather conditions like rains, floods, droughts. It involves the safe and economical use of pesticides and producing plant varieties, which in turn assures higher lint percentage. The second focus area is education, which involves keeping farmers informed in advance about the irrigation, water conservation, likely pest-disease attack, etc. The third area of focus is quality improvement, which involves having better harvesting practices to reduce trash and contamination in lint cotton. This also involves ensuring better quality and quantity of cotton produced at farmer's level, which also makes sure the entire value chain gets the benefit of good quality cotton and it adds to sustainably of every organ of overall textile Industry.

Indo Count's initiative has yielded results in two years, with farmers starting to adopt its suggested practices. As a result, in a period of little over two years, there is a considerable yield improvement, which has led to increase in the farmers' income by 31 per cent.

Vidharba region in Maharashtra, where Indo Count has initiated the project, is associated with a lot of farmer suicides due to crop failure. Indo Count has created a sustainable model in solidarity with farmers, which has shown a way forward for the region. The project ensures not only better production of cotton but also connects the farmers to nearby ginning mills as ready buyer of their produce, which helps them fetch good income.

When good quality cotton is available for processing, the entire value chain is benefited. Good quality cotton fetches better value for farmers and it helps them to raise their income levels. Therefore, as a part of the textile value chain, the Gagan project has created huge financial as well as social value to benefit all the stakeholders of textile Industry.

With the phenomenal results the project has demonstrated, over the next 3-5 years, Indo Count intends to increase its outreach to cover more farmers and acreage in the project for growing good quality cotton. It is also in the process of developing a Centre for Excellence in Cotton Farming at Worora. ◆

SAAHAS

Nothing is waste

Saahas works with all the stakeholders in the waste ecosystem

According to figures released by the Ministry of Environment, Forest & Climate Change (MoEFCC) waste generation in India will increase from 62 million tonnes annually in 2016 to about 165 million tonnes in 2030. Managing solid waste, already a mammoth task in India, is becoming more complex with changing lifestyles and increase in consumerism especially the usage of packaged goods. The problem cannot be addressed by just sweeping and installing bins.

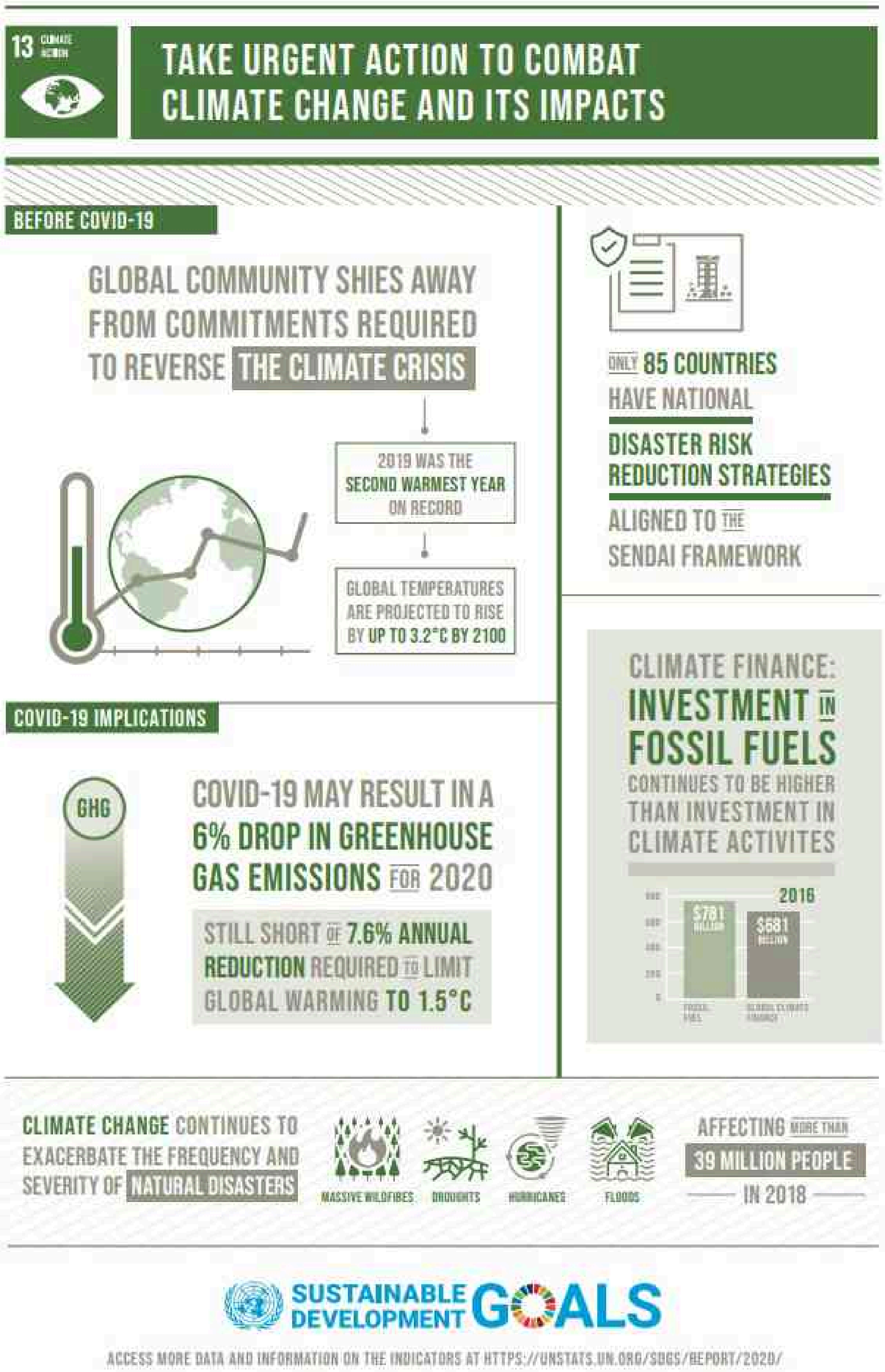
Where will all this waste, swept and collected, go? What would happen to it? Can we continue with this linear flow of resources?

Saahas, a not-for-profit organisation, was founded in 2001 to explore answers to these questions and develop solutions and approaches to manage India's resources on the principles of circular economy, where nothing is waste.

Rapid growth Winner of the first FICCI Circular Economy awards in 2019 and the recipient of the prestigious HCL Grant for 2021, Saahas works in both urban and rural areas, across different parts of the country. It has seen rapid growth, starting in 2001, by doing some pilot work in Bengaluru. Today, its solutions have scaled up to cover entire cities and blocks in rural areas. And, this has been achieved through large-scale capacity-building of the functionaries engaged in waste management and thoughtfully-designed and executed awareness campaigns. It has worked with the City Municipal Corporation, Udupi, to implement source segregation in the entire city and help the CMC establish decentralised processing systems. It is also working with the municipal corporations of Gurugram, Haridwar and Rishikesh, to support them in implementing source segregation, streamlining collection & transportation and setting up of appropriate processing facilities. In the rural segment, Saahas has been working in four districts of Karnataka, to scale up SWM implementation across all the rural areas and demonstrate aggregation model for plastic waste management. It has also trained SHGs to take up waste collection and processing in the villages, thereby generating livelihoods for rural women.

Apart from providing solutions for collecting and managing waste, a key focus area for the organisation has been reduction of waste quantum being generated by projects on life-extension through re-use and repair. Through these projects, it has been able to generate green jobs, has engaged SHGs for production of eco-friendly bio-cleaners, as also 'packaging free' soaps. And, in 2021-22, spread across 18 districts in 12 states, Saahas enabled source segregation of 79.5 tonnes per day of solid waste. ◆

Goal: Take urgent action to combat climate change and its impacts



13 CLIMATE ACTION

TAKE URGENT ACTION TO COMBAT
CLIMATE CHANGE AND ITS IMPACTS

BEFORE COVID-19

GLOBAL COMMUNITY SHIES AWAY FROM COMMITMENTS REQUIRED TO REVERSE THE CLIMATE CRISIS

2019 WAS THE SECOND WARMEST YEAR ON RECORD

GLOBAL TEMPERATURES ARE PROJECTED TO RISE BY UP TO 3.2°C BY 2100

ONLY 85 COUNTRIES HAVE NATIONAL DISASTER RISK REDUCTION STRATEGIES ALIGNED TO THE SENDAI FRAMEWORK

CLIMATE FINANCE: INVESTMENT IN FOSSIL FUELS CONTINUES TO BE HIGHER THAN INVESTMENT IN CLIMATE ACTIVITES

COVID-19 IMPLICATIONS

COVID-19 MAY RESULT IN A 6% DROP IN GREENHOUSE GAS EMISSIONS FOR 2020

STILL SHORT OF 7.6% ANNUAL REDUCTION REQUIRED TO LIMIT GLOBAL WARMING TO 1.5°C

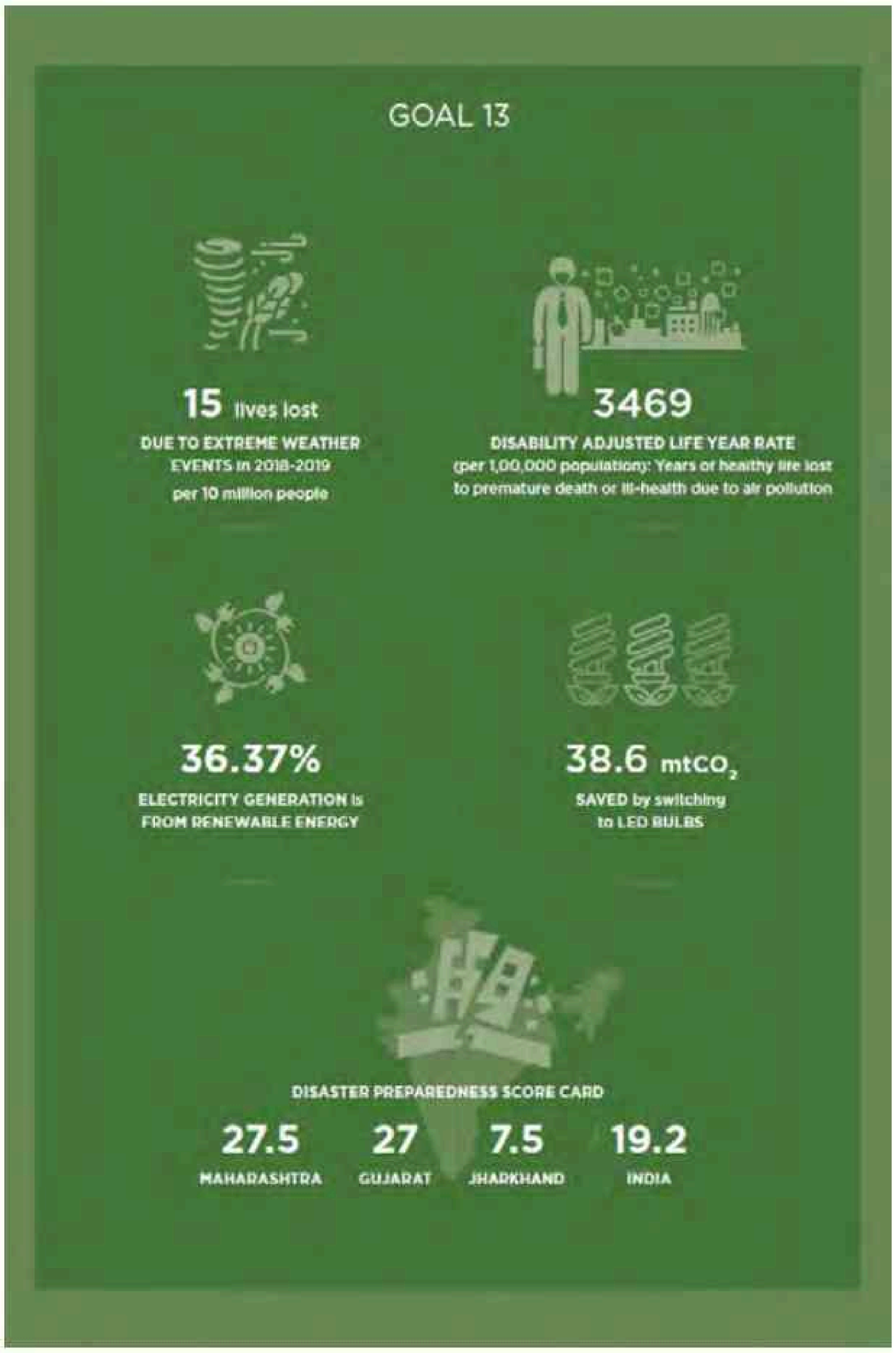
CLIMATE CHANGE CONTINUES TO EXACERBATE THE FREQUENCY AND SEVERITY OF NATURAL DISASTERS

AFFECTING MORE THAN 39 MILLION PEOPLE IN 2018

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 13

15 lives lost
DUE TO EXTREME WEATHER EVENTS in 2018-2019
per 10 million people

3469
DISABILITY ADJUSTED LIFE YEAR RATE
(per 1,00,000 population): Years of healthy life lost to premature death or ill-health due to air pollution

36.37%
ELECTRICITY GENERATION is FROM RENEWABLE ENERGY

38.6 $mtCO_2$
SAVED by switching to LED BULBS

DISASTER PREPAREDNESS SCORE CARD

27.5	27	7.5	19.2
MAHARASHTRA	GUJARAT	JHARKHAND	INDIA

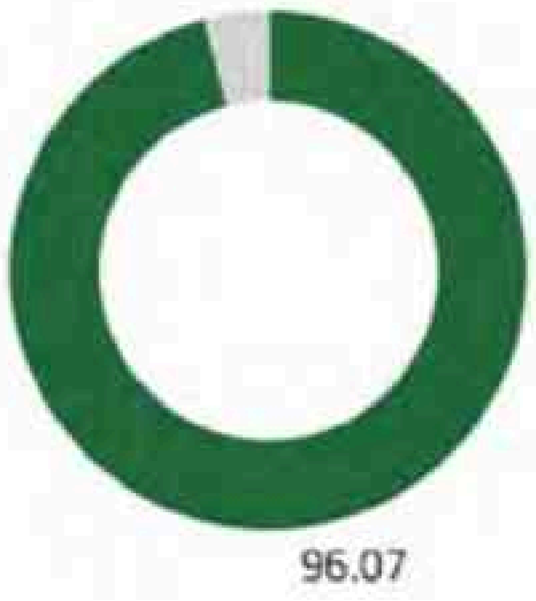
Source: NITI Aayog

13 CLIMATE ACTION

Country Rank

46/165

Score



UN Dashboard Status

SDG Achieved ●

Trend

On track or maintaining SDG achievement ↑

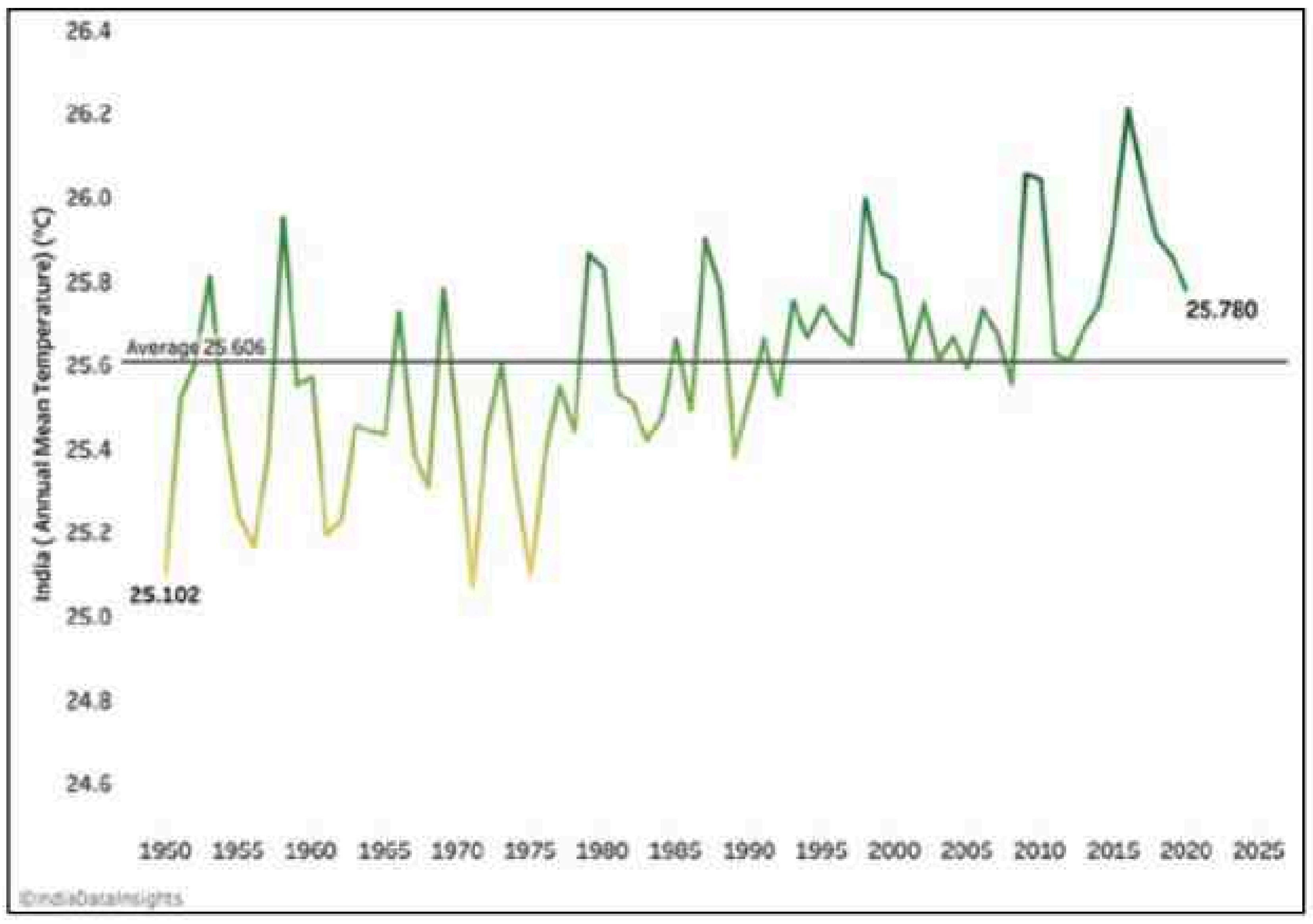
Climate change is one of the most recognised issues of our age, and one that is impacting lives in every continent. India has identified three targets that will help us achieve our targets of climate readiness:

The 2030 targets include:

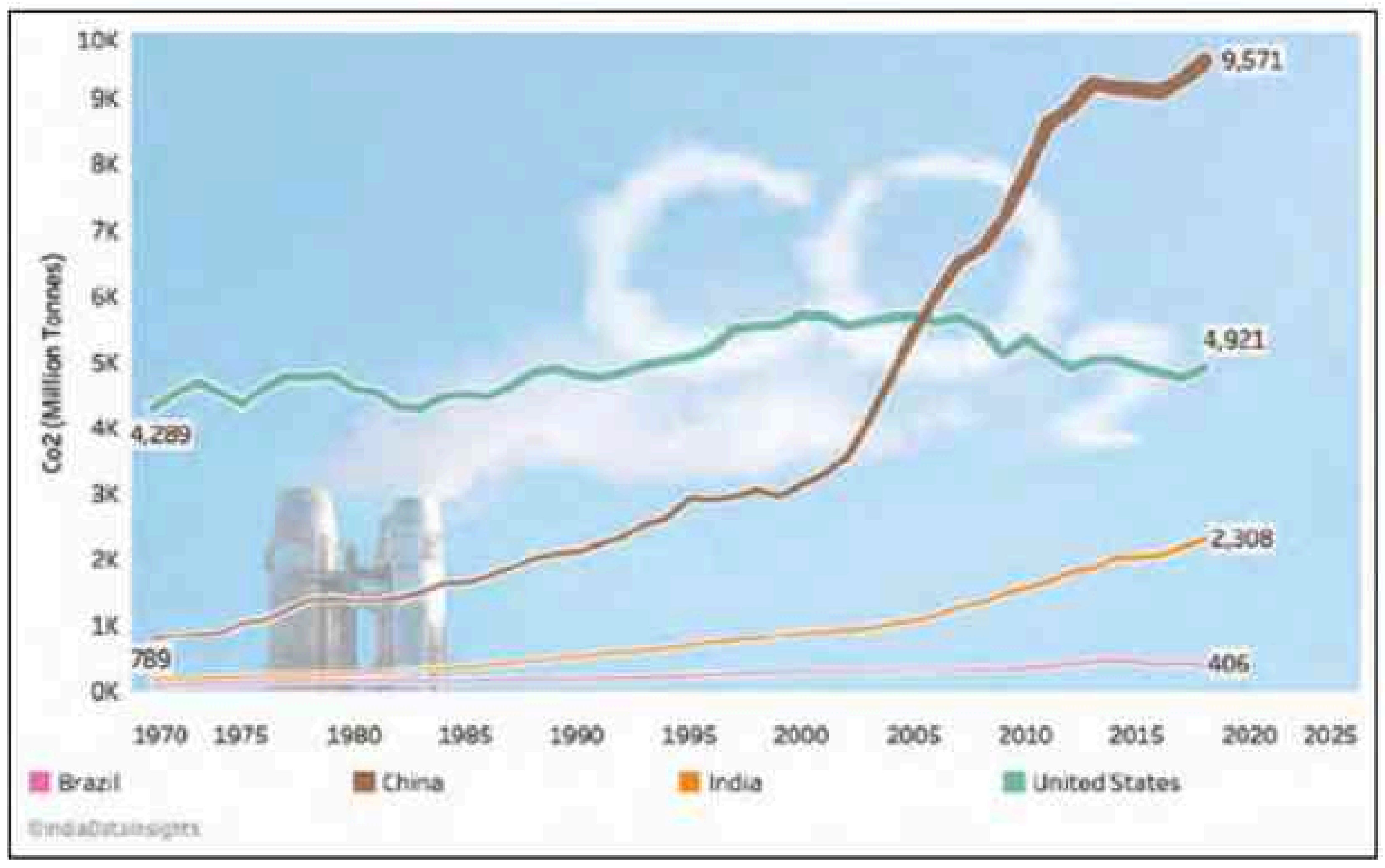
1. Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
2. Integrate climate change measures into national policies, strategies, and planning
3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

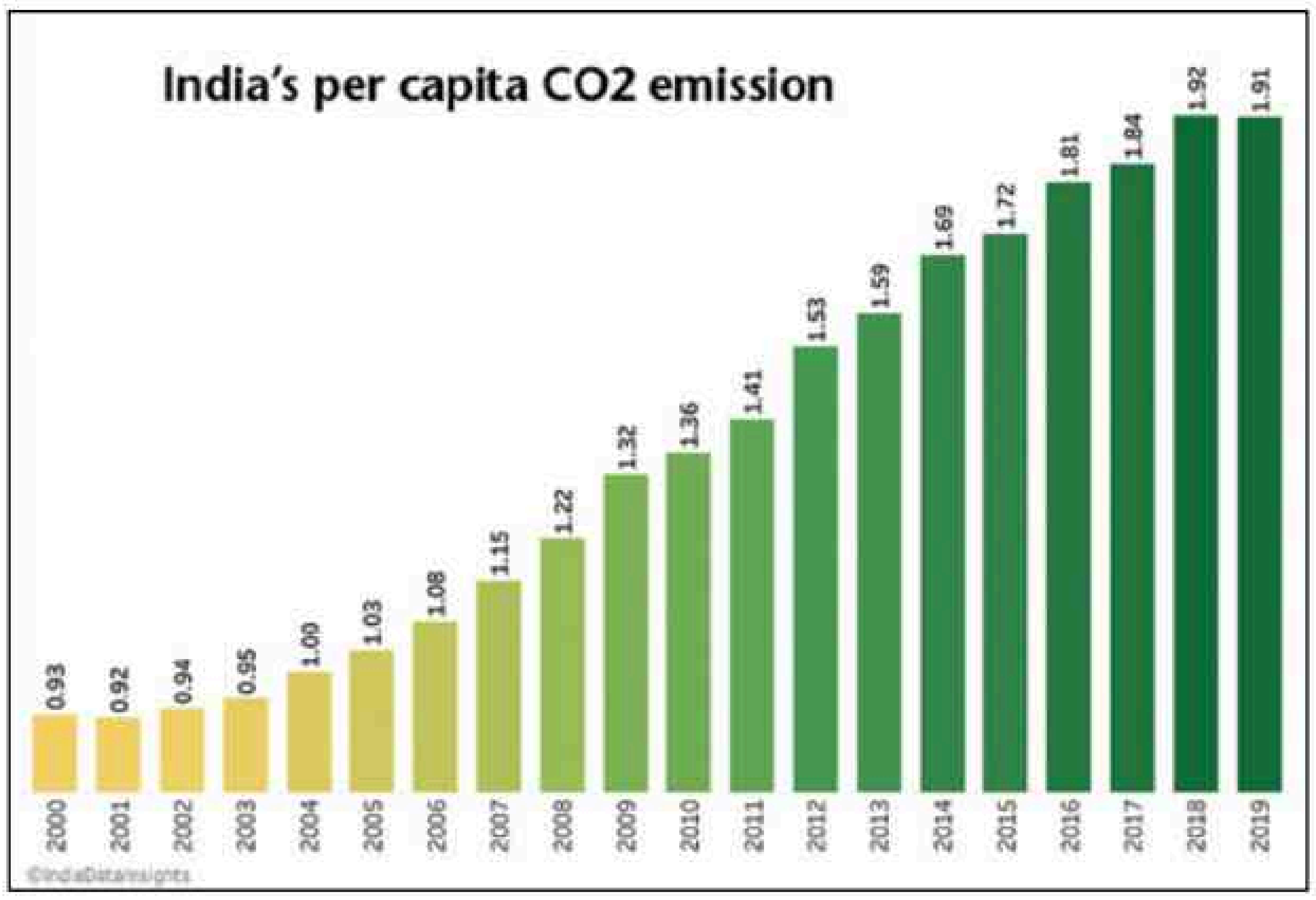
Based on these targets and efforts over recent years, India currently ranks 46th in the world for Climate Action, and the nation is considered to be on track to achieving the SDG-13 targets.

The increasing global temperature has been one of the leading signs of climate change. In India, the overall temperature has risen by ~0.7°C since 1950, with the highest annual mean temperature being observed in 2015 (26.2°C). While this is lower than the globally expected 2°C rise, it shows an upward trend that is being seen around the world.



CO2 Emissions





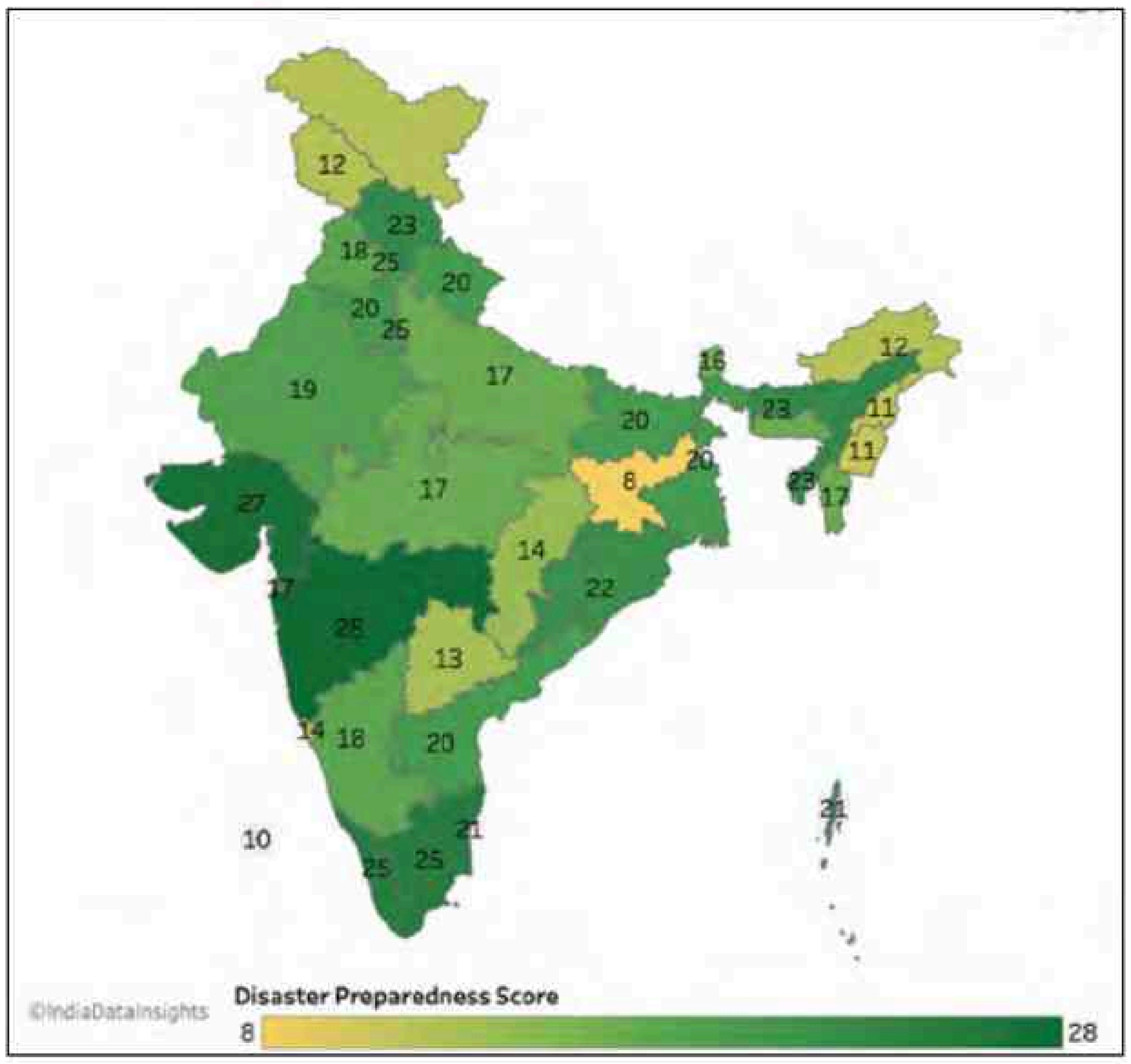
Increasing CO2 emission has contributed significantly to this rise in temperature. In the last five decades, India's CO2 emission from energy production has increased 13-fold, from 181 million tonnes in 1971 to 2,308 million tonnes in 2018. This remains lesser than China (9,751 million tonnes) and the United States (4,921 million tonnes).

India's per capita CO2 emission has seen continuous gradual growth in the last two decades and has doubled from 2000 to 2018.

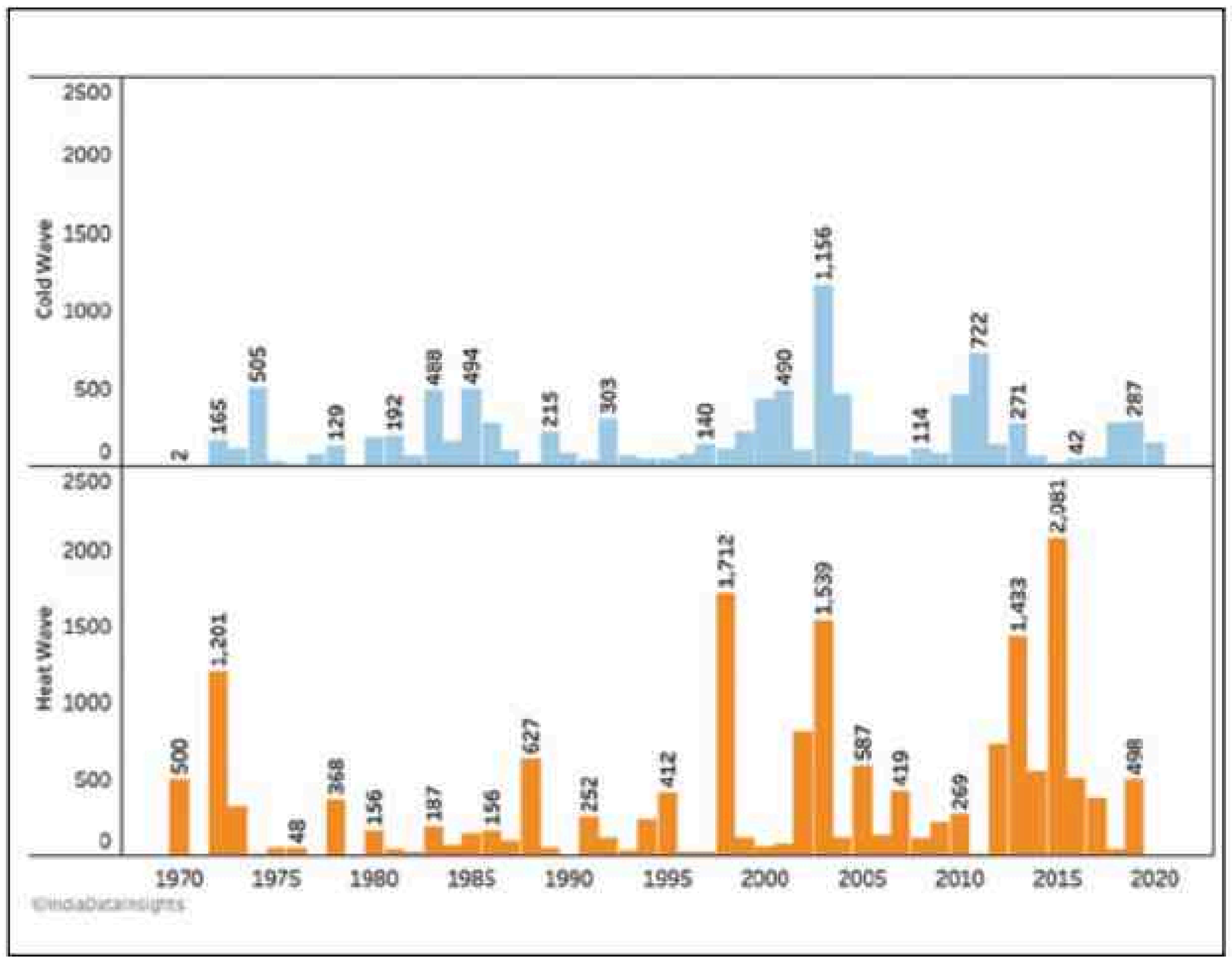
To combat the growing rate of emissions, programmes such as the promotion of LED lamps have been started by the Government of India. Unnat Jyoti by Affordable LEDs for All (UJALA) was launched by the Prime Minister on January 5, 2015. Between 2015 and 2022, the Power Ministry distributed 36.78 crore LED lights under the

UJALA programme, which saved 47,778 million units of electricity per annum. The programme has evolved to be the world's largest zero-subsidy domestic lighting scheme that addresses concerns like high electrification costs and high emissions that result from inefficient lighting.

Disaster Preparedness



Disaster Preparedness Score is a composite score of various factors such as Early Warning Systems, Disaster Communication Systems, and Contingency plans, with a maximum score of 50. In India, the states of Maharashtra and Gujarat have the highest scores in India at 28 and 27, respectively, while Jharkhand has the lowest disaster preparedness score of 8.

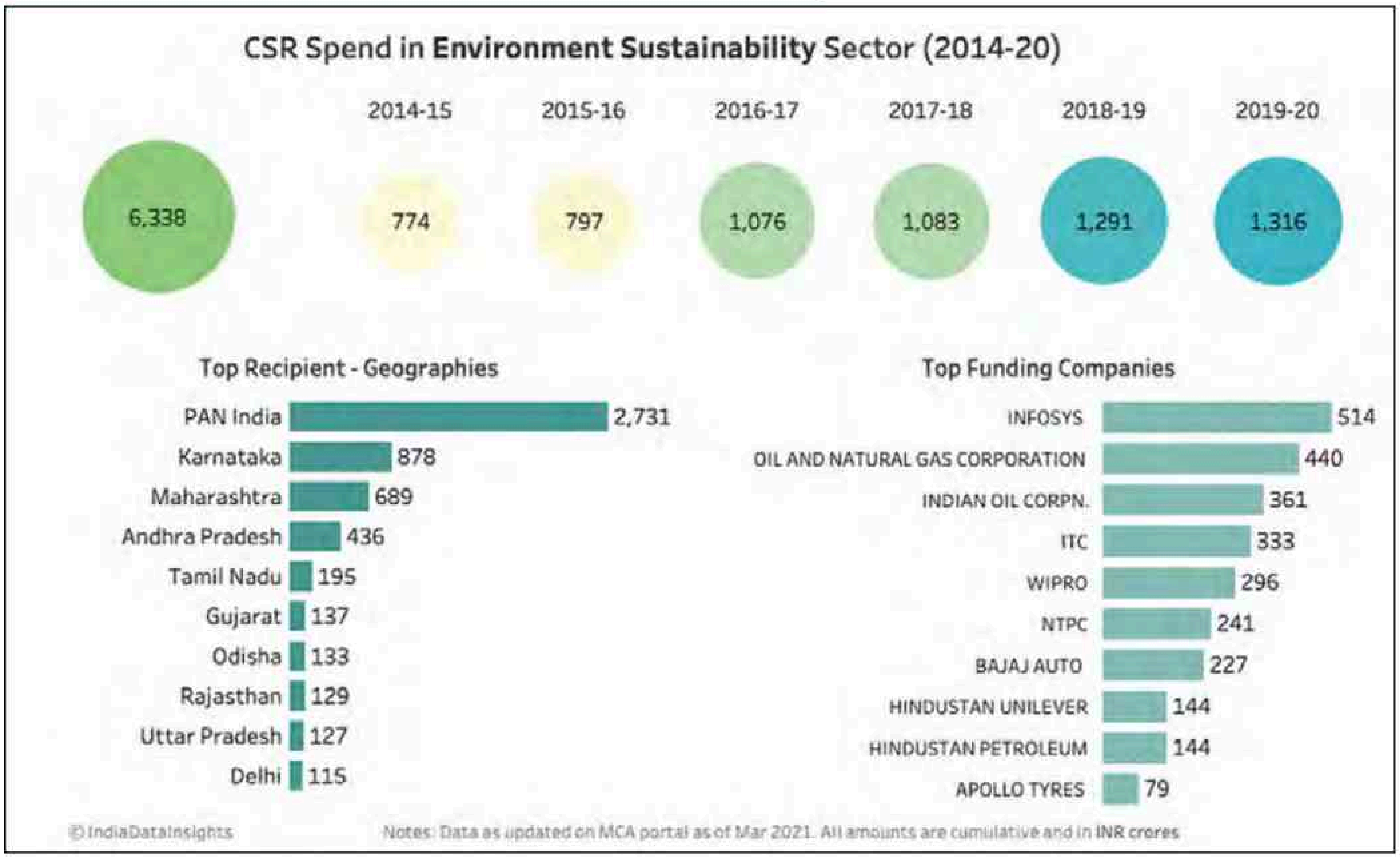


Lives lost due to extreme weather is one of the country's leading causes of disaster-related deaths. As per data from the Disaster Management Division, Ministry of Home Affairs, there has been a 145 per cent increase in fatalities over the last two decades, with the highest being 3,764 in 2007-08.

Data from the India Meteorological Department, Ministry of Earth Sciences, shows that the highest number of deaths (1,156) due to cold waves was reported in the year 2003, while the highest number of deaths (2,081) due to heatwaves was witnessed in 2015, which was also the year with the highest annual mean temperature.

India has been actively working to strengthen resilience and adaptive capacity across the nation. Despite increasing temperatures, sustained efforts have the potential to increase human awareness and institutional capacity to limit growing climate risk in coming years.

CORPORATE CONTRIBUTION



Notes: Data as updated on MCA portal as of Mar 2021. All amounts are cumulative and in INR crores

Between 2014 and 2020, the annual CSR spend towards environmental sustainability witnessed a 70 per cent increase. The top 5 corporate contributors in this space include Infosys, ONGC, Indian Oil Corporation, ITC and Wipro, with a combined investment at ₹1,944 crores. At ₹878 crore, Karnataka has been the largest beneficiary of CSR investments in environmental sustainability. Maharashtra and Andhra Pradesh have been the next two major beneficiary states with a combined CSR investment of ₹1,125 crores.

The context and canvas in India

Leave the planet as it was found, if not better

Sustainable development may once have been an abstract idea. However, with immense focus on all aspects of human development, SDGs have translated the idea into concrete steps. SDG-13 pertaining to climate action is one such case, where India has attained critical mass in effecting positive action.

At COP-26, India adopted some challenging goals for its SDG commitments that included installing 500-GW non-fossil fuel electricity capacity, sourcing 50 per cent of energy requirement from renewables and reducing 1 billion tonnes of projected emissions, all by 2030. While we explore pathways to reach these targets, key challenges such as developing commercially viable technologies at scale, addressing challenges in the hard-to-abate sectors, increasing energy efficiency, arranging financing for these initiatives and ensuring that the transition is sustainable for all sections of the society remain. A critical look at these aspects will be instructive in charting a course to accomplish these goals while providing opportunities for entrepreneurs.

Deploying commercially viable technologies at scale is at the heart of reducing Capex and maximising the benefits that can be derived out of them.

Solar: Technologies for manufacturing wafers and modules including some which rationalise manufacturing steps and securing poly-silicon at viable prices are key to further growth. Land acquisition for solar development also needs attention.

Onshore and offshore – wind, hydro and nuclear: Required for diversifying renewable or non-fossil fuel power.

Electric vehicles: Two- and four-wheeler EVs must increase, concurrently providing incentives and budgetary support to create charging infrastructure.

Electrolysers: For hydrogen to be available at a replacement rate for natural gas, the cost curve of electrolysers must fall.

Grid capacity and battery energy storage: Technologies such as lithium ion (LFP), sodium ion, NMC, etc, are jostling for at scale deployment, while upgradation and expansion of grid capacity is required.

Hard-to-abate sectors: Heavy industry (cement, steel, chemicals, and aluminium) and heavy-duty transport (shipping, commercial road transport and aviation) are inevitably linked to the growth of India. Tackling greenhouse gas emissions from these sectors will be a key challenge, going forward.

At present, due to the manufacturing processes employed, renewables or alternate fuels cannot replace fossil fuels in these sectors. However, nascent steps towards usage of hydrogen in steelmaking and carbon capture and sequestration in cement processes are being taken. With grid capacity augmentation and electrolyser ecosystem, renewables and hydrogen can be a promising way to tackle this challenge. With increasing availability of technologies to abate carbon emissions, the face of these industries will be a lot different compared to what we see today.

In the transportation sector, R&D spend must rapidly be scaled upon the one hand for developing alternative fuels, such as ammonia in shipping and aviation to reduce dependence on fossil fuels and on the other hand for developing EVs that can tackle long-haul transportation.

Improving energy efficiency: India has increased the target of reducing its share of emissions intensity by 2030 to 45 per cent in COP-26. A sizeable reduction in emission intensity has already been achieved under the National Mission for Enhanced Energy Efficiency (NMEEE). The revised target thus seems within reach. In fact, a vast opportunity to expand energy efficiency measures in residential, MSME and transportation sectors exists.

Given the rapid urbanisation, energy consumption is slated to grow in the residential buildings sector. If solar micro-grids with storage technologies are adopted, energy efficiency will get massive fillip. Targeted solutions for the industrial sector will also provide many business opportunities for entrepreneurs. Phasing out old technology to pave way for energy efficient technology and incentivising extraction of energy from low temperature waste heat will need government support. Improvement in turbine efficiency and heat rate will ensure that thermal power plants that will remain a sizeable percentage of the total generation capacity even in 2050 are utilised efficiently. Usage of renewable power in data centres, where a massive expansion is expected will also go a long way in establishing energy efficiency.

For the transportation sector, building more expressways, freeways, flyovers and tunnels will arguably reduce fuel consumption per km. Building mass transit systems also reduces carbon footprint to a large extent on a net calculation basis. The vehicle scrappage policy is also a step in the right direction.

Financing: Climate finance is one of the most

S.N. SUBRAHMANYAM

The author is Managing Director, Larsen & Toubro important levers to effect climate change. Every company, every financial firm, every bank, insurer and investor will need to partake for the massive shift to take place. Massive capital deployment for long gestation periods, with a moderate interest rate regime, is the need of the hour, while making carbon-intensive investments costlier. Of course, viability gap funding is required from the government to bridge the gap between charging users fairly and a cost that is viable from an investment standpoint.

Just and sustainable: Though India's energy demand is on the rise given the expanding nature of its economy, the per-capita energy consumption is low. In our effort to reduce emissions, we must ensure that the growing energy needs of the country being met through carbon emitting sources are coupled with carbon capture or efficiency improvement techniques. Of course, efforts to transition to clean but affordable sources augur well for India. The transition to a low carbon economy will also need workforce transition techniques to ensure that the opportunities that green technology provides is not skewed towards some regions only.

Strategy for action: L&T is following a two-pronged approach. On the one hand, there is focus on various green energy initiatives to develop them as new business streams. On the other hand, steps are being taken to realise our targets of water neutrality by 2035 and carbon neutrality by 2040. Though the company recognises that this is an uphill task, it is positively committed to achieving the same.

L&T has traditionally been an integrated energy company in many ways. With the offering of turnkey solutions for the hydrocarbon upstream, mid, and downstream sector, power sector, transmission and distribution infrastructure, solar development, almost all the energy sector clients in India and the Middle East are covered. Similarly, L&T's state-of-the-art manufacturing facilities cater to the heavy equipment demand including vessels, reactors, boilers and turbine generator of various clients in the energy market. Add to this, our design, engineering, and project management expertise put us in a unique position to exploit opportunities in the green energy space.

The company has, as an organisation, as per its strategic plan, identified that the next phase of growth will be driven by the alternative fuels market, particularly green hydrogen. In that direction, it has tied up with ReNew Power to pursue green hydrogen opportunities. Similarly, with a view to add value beyond our traditional turnkey offerings, it is building capabilities in manufacturing of electrolysers, grid scale batteries for energy storage. It is believed that these initiatives will not only drive the next phase of growth but will also go a long way in contributing towards a cleaner future.

However, at present, emissions are an inevitable part of many of our businesses. With a combination of various measures at project locations and office campuses we believe that we can reduce the intensity of our carbon emissions. These measures include adoption of re-usable solar power modules to replace DG sets, alternate fuels for various construction equipment and efficient usage of resources using digital tools such as IoT and connected equipment. Some of the key group-wide targets are:

Improve the energy efficiency of all equipment by 2-2.5 per cent per year through better processes, use of digital technologies for productivity improvement, and replacement of older machines with newer more efficient machines.

Increase the use of eco-friendly fuels by at least 5 per cent by 2026, and 100 per cent by 2045. Based on evolution of renewable fuels/ technology options that include battery electric vehicles (BEVs), renewable diesel, green H2, stationary fuel cells, fuel cell electric vehicles (FCEVs), etc. for application in fork-lifts, cranes, furnaces, off-grid power, batching plants, back-up power, etc, these targets can be achieved.

> **With a combination of various measures at project locations and office campuses we believe that we can reduce the intensity of our carbon emissions**

Increase the use of renewables from 10 per cent currently to 50 per cent by 2026 and 100 per cent by 2035 – contingent upon the advancement in battery and RE power storage technologies.

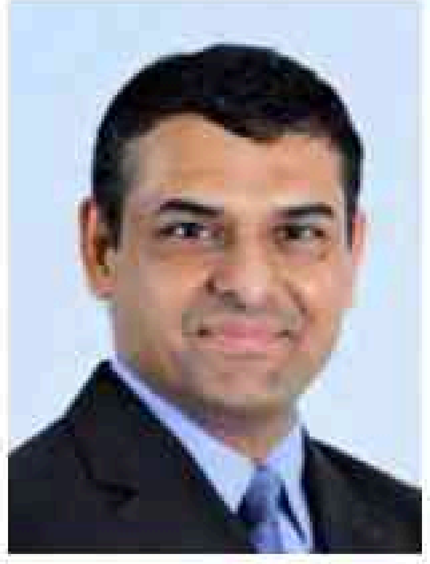
These measures are expected to abate 85-90 per cent emissions. The remainder of the emission has to be offset by planting 1 million trees per year for offsetting CO_2. In the long run, there should be breakthroughs in the whole ecosystem that will help in achieving these goals. Adoption of these measures across the industry will tip the balance in favour of attaining climate goals.

In no uncertain terms, climate change mitigation initiatives are the most important goals that as a corporate, a community, a country, and as global citizenry affected by climate change should focus on, ensuring that we leave the planet as we found it if not better, while being committed to sustainable human development. ◆

Opportunities for India

Indian companies must ascertain how material climate change is to their business

SHANKAR VENKATESWARAN



DR. MUKUND RAJAN

When the SDGs were adopted by the UN General Assembly in 2015, SDG-13 on Climate Action was left to be defined by the Paris Conference of Parties to the UN Framework Convention on Climate Change (UNFCCC). Countries committed themselves at Paris to keeping global warming 'well-below' 2 degrees Celsius vis-à-vis pre-industrial times.

Fast-forward to 2021. The recently concluded Glasgow climate change conference suggests a tale of hits and misses. Several countries have upped their commitment to halting climate change, including by making net-zero commitments and the consensus now is that global warming must be limited to 1.5 degrees Celsius. However, technology and finance remain huge challenges, with the developed world still not contributing the annual climate finance flows of $100 billion promised to the developing world. The issue of climate change adaptation, including compensation for loss and damage in the worst affected developing countries, has been largely pushed to the next conference. Clearly, climate justice and the notion of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) written into the UNFCCC are open questions.

Where does that leave India? We are called out as the third largest carbon emitter after China and the US, but rankings hide more than they reveal. Our total emissions are a fourth of China's and less than half of the US. In per capita terms, we are way below. However, we are vulnerable to the impacts of climate change. Extreme climatic events like cyclones, floods and droughts have increased in frequency, putting our population in physical danger and threatening critical sectors, such as agriculture. So, while India must continue to push in global forums for climate justice, CBDR-RC, a focus on adaptation and the need for finance and technology, in parallel, we have to reduce our own vulnerability and enhance our commitment to climate change mitigation.

Sectors such as power generation, automobiles, metals, and cement account for the bulk of India's carbon emissions. They will be impacted by public policy, which is becoming more climate friendly, with a vigorous thrust in areas like solar power, electric vehicles and energy efficiency. The market regulator, SEBI, has mandated that the top-1,000 listed companies produce Business Responsibility and Sustainability Reports. And recognising the need for enhanced sustainable finance, the Ministry of Finance has set up task forces to look at key enablers like a green taxonomy. Coal, amongst the largest reserves of which are found in India, remains an area where policy has been more ambivalent, influenced no doubt by the need to balance development, climate change and a just transition. But the overall direction suggested by Prime Minister Modi's announcements in Glasgow suggests that Indian businesses can expect more direct and urgent climate friendly policy signals.

Meanwhile, global capital allocations are increasingly tilting in favour of companies that are proactively addressing climate change in their businesses. After the Paris Climate Agreement, several leading investors announced their intention to divest their holdings in companies drawing significant revenues from fossil fuel consumption, and since then, more investors are expecting their investee companies to focus on climate change. Disclosures are being sought in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). The formation of coalitions of investors committing themselves to net-zero carbon emissions is yet another indicator of how seriously investors are pursuing this agenda.

Indian businesses must also prepare to respond to climate-related restrictions in overseas markets. The Carbon Border Adjustment Mechanism of the EU is one such example. Foreign companies are calling for more climate-friendly operations from their Indian suppliers, triggered both by their own commitments to manage their Scope 3 emissions and by regulations in their home markets. And customers across the world, especially millennials, are calling out companies for climate unfriendly practices, and expecting greater disclosure on emissions, including through more transparent product labelling.

To align better with SDG-13, Indian companies must, with their boards leading on this agenda, ascertain how material climate change is to their business. Where material, they must keep a close watch on climate-related regulations in India and overseas so that they are prepared to respond swiftly to any additional requirements. Meanwhile, new business opportunities are emerging in areas such as EVs, battery storage, meat alternatives, high efficiency materials, green hydrogen, and carbon capture and storage. With the right combination of R&D investment and infusion of risk capital, companies that smartly time their entry in these spaces will see disproportionate gains. By setting long-term climate-related targets, making the necessary investments in technology, equipment and processes and tracking performance against targets, Indian companies will be better prepared to navigate towards a low-carbon future. ◆

Shankar Venkateswaran is Operating Partner, ECube Investment Advisors; Dr. Mukund Rajan is Chairman, ECube Investment Advisors

Industry-led sustainability

Industry should tackle externalities that manifest beyond the production premises

DR. GOPICHANDRAN

DR. DASH

Businesses are at the core of preventive and amelioration outcomes to tackle impacts of climate change. SDG-13 is about such overarching sector-specific and crosscutting climate action. Industry appears to increasingly acknowledge mitigation and adaptation imperatives aligned with country-specific net-zero trajectories. Industry is also at the centre of initiatives of the Energy Transitions Commission, Climate Action 100+ and the UN Climate Action Pathway. Science Based Targets initiative emphasizes a climate focus. The Leadership Summit of the Quad, UN High Level Climate Action Champions and several other bilateral and multilateral partnerships are additional cases in point. The Davos Agenda 2022 is expected to deliberate on the regulatory, market and institutional milieu for net-zero emissions across value chains. This could include a special focus on nature-positive solutions and value-based humanitarian investing. Sustainability however hinges primarily on equity- and justice-centred trade with implications for economic well being and quality of life across geographies.

The science in climate change: Science appears to increasingly determine the contours of collective climate action to tackle cascades through economic systems. The World Economic Forum in its recent report about global risks highlighted the centrality of science-based outlooks. The Paris-rulebook agreed in Glasgow is expected to set the context for high volume green investments to tackle climate and resultant business risks to enhance resilience. The Glasgow Financial Alliance for Net Zero committed trillions of USD as private capital to help achieve the net-zero vision. The World Meteorological Organisation indicated that threat perception of climate change is mounting. It further cautions that a disorderly transition would only enhance these risks. Temperature rise is implicated in fall in labour productivity in manufacturing plants; especially in bio-resources-based sectors. The costs of adaptation could run into billions of dollars on a yearly basis by the turn of the present decade. This was highlighted recently by the World Bank group and the Global Facility for Disaster Reduction and Recovery.

Macro initiatives: India strives to tackle challenges posed by climate change through multi-pronged cross-sectoral strategies. Her intent is clear through the Nationally Determined Contributions and the Biennial Update Report, followed by her proposals for the way ahead of COP 26. She also takes note of the scale of impacts on her GDP. Her efforts through the PAT scheme have mainstreamed cleaner production and energy efficiency enhancement practices in many sectors. Significant mitigation gains with spin offs for productivity and economic resilience are reported also from steel and cement sectors. She simultaneously enables systemic transitions through climate and disaster resilient infrastructure, electricity markets, smart grids, storage technologies and optimal energy mix policies. Shared savings and guaranteed saving models pervade this intervention. She partners leading economies through bilateral platforms too. The Climate Action and Finance Mobilization Dialogue with the US, the Connectivity Partnership with the EU, India-German cooperation and energy dialogues with Australia, address climate and related clean energy considerations.

India's stewardship ethos is reflected in SDG India Index and Dashboard 2020-21.This is especially so with respect to five important correlates relevant for SDG-13 as a function of livability and workability, state of capital infrastructure and the functional dynamics of natural capital. India's national resource efficiency policies are set to co-evolve with her emission reduction commitments; much as they could abide by a cradle-to-cradle approach only to encourage resource efficient business models. Larger gains can be secured by climate-proofing India's energy sector. This is true especially for coal-based and renewable energy generation systems, transmission and distribution; considering grid integration needs. India could derive useful lessons from the Energy Sector Assistance Management Programme partnership. The World Business Council for Sustainable Development also presents a SDG roadmap for electric utilities duly recognizing the impact it can have on circular economy too. The Environment, Social and Governance framework appears to co-create economic, social, and ecological values, central to sustainable development. It assesses changes in energy portfolios of companies and creates the impetus to report climate-related financial risks to all stakeholders. It reflects inclusiveness through resilient market channels and accountability through multiple preventive management practices.

Role of corporations: Businesses could raise their SDG-based ESG profiles by assisting national missions on the much-needed investigations about

Dr. R. Gopichandran is Professor, NTPC Business School; Dr. A.P. Dash is Dean, NTPC Business School

processes to enhance resilience. Three strategically important thrusts emerge in this context. The first window of opportunity is about forms and functions of India's power sector and other industrial infrastructure. Their vulnerability and resilience attributes should be established on priority across all landscapes. The second pertains to assessments of chemical ecological profiles of ecosystems. The UN Decade on Ecosystem Restoration sets the context. Empirical evidences of individual, synergistic and antagonistic processes within ecosystems and their outcomes are few and far between; especially from a management perspective. These are essential to understand their adaptive abilities and the spread and depth of conservation interventions to enhance and sustain ecosystems services they offer. Importantly so, negative externalities are known to modify the impacts management capacities of ecosystems at local and regional scales. These in turn affect livelihoods also as a function of entitlements. A typical example is about nitrogen management in soils and productivity. The International Nitrogen Management System and the related Colombo Declaration on Sustainable Nitrogen Management propose a nitrogen-circular economy; with significant roles for businesses dealing with fertilisers in particular. The third strand is about energy efficiency enhancement opportunities with reference to unit processes and operations in small and medium enterprises. Reality checks are needed to establish the veracity of mitigation-driven business models to create and reinforce the ethos of climate efficient production, consumption and conservation.

Industry could therefore seize opportunities to tackle externalities that manifest far beyond the four walls of their production premises. This is to enrich public policy processes with real life understanding of the spatial and temporal relevance of pluralistic governance of mitigation and adaptation processes. Stakeholder engagement processes, as in energy democracy are critical to apportion gains secured. This includes restructuring induced budget implications, cost recovery mechanisms and the influence of disruptive technologies. Insights and outputs from these and other initiatives can contribute significantly to the global stock take next year. ◆

Our mission towards our only future

Human actions have influenced the climate emergency; therefore, humans should act urgently to limit global warming

LUCAS RIBEIRO

TAMANNA GIRDHAR

Human impact on the Earth's climate over the decades is clear. Human actions have the potential to influence the future course of climate systems – positively or negatively. Recent human-influenced changes in the climate are widespread, rapid and intensifying. This is one of the key messages conveyed by the recently launched IPCC Working Group I Report, *Climate Change 2021: The Physical Science Basis*. The report has projected heat waves and humid heat stress to be more intense and frequent in South Asia during the 21st century. From agricultural to urban impacts, heatwaves, shorter cold seasons, longer warm seasons, changes in rainfall patterns and drought regimes, extreme weather events and sea-level rises are examples of physical changes caused by climate change and that may be more intense and frequent with further warming. Many of these observed changes in the climate are unprecedented in thousands of years and are expected to increase on an even warmer planet. "Climate change is already affecting every region on Earth, in multiple ways," says Panmao Zhai, Co-Chair, Working Group I, IPCC. "The changes we experience will increase with additional warming". The UN Secretary-General has said the IPCC report is a code red for humanity.

The report shows that human-caused greenhouse gas emissions are responsible for about 1.1°C of warming since the end of the 19th century and that limiting global warming to 1.5°C or even 2°C will be beyond reach in the current pathway we are in. Nevertheless, it is an urgent but not hopeless scenario. Strong, accelerated and sustained reductions in greenhouse gas emissions – achieving net zero CO_2 emissions – can stabilise the climate and limit global warming.

Climate action is integral to meet the SDGs and our collective mission. Taking urgent action to combat climate change and its impacts, as read by SDG-13, must be at the core of corporate and governmental strategies. Led by the Science-Based Targets initiative (SBTi), in partnership with the Race to Zero, the Business Ambition for 1.5°C calls on businesses to commit to set ambitious science-based emissions reduction targets. To avoid the even worse climate impacts and irreversible changes to natural systems, societies and our economy, we must limit global warming to 1.5°C in comparison to pre-industrial levels. This so-called '1.5°C future', our only future, requires halving GHG emissions by 2030 and reaching net-zero emissions by 2050 at the latest.

Lucas Ribeiro is Consultant, Climate Ambition Accelerator, UNGC; Tamanna Girdhar is Programme Lead, Climate Ambition Accelerator, UN GCNI

The SBTi provides companies with a clearly defined path to reduce emissions in line with the Paris Agreement goals. Since its launch in 2015, it has grown from an initial, innovative concept into a widely recognised standard for meaningful corporate climate-related action. It has released a strategy update increasing the minimum ambition for corporate targets from 'well below 2°C' to '1.5°C' above pre-industrial levels.This announcement was rolled out in response to increasing urgency for climate action. Moreover, with 1.5°C-aligned targets now becoming the most common choice for businesses – representing 66 per cent of all submissions to the SBTi in 2021 – it was a natural step to accelerate exponential growth in the adoption and implementation of science-based targets aligned with a 1.5°C temperature pathway, particularly from companies in high-emitting sectors and across G20 countries. The update is also a critical milestone for the initiative that covers 20 per cent of the global economy, with more than 1,700 companies taking action, in more than 60 countries and over 50 different sectors.

Although the momentum of climate action is steadily growing, the world still needs more and more leaders to integrate climate change into their strategies and policy positions. The Taking the Temperature Report, released in June 2021 by the SBTi shows that leading stock indexes from G7 countries are on an average temperature pathway of almost 3°C, according to their constituents' current climate-related commitments. "G7 companies have the potential to cause a 'domino effect' of positive change across the wider global economy," says Lila Karbassi, Chief of Programmes, UN Global Compact, and SBTi Board Chair. "This report highlights the urgent need for markets and investors to deliver on the goals of the Paris Agreement".

Building on the UN Global Compact's work to develop and promote SBTi and corporate climate action, the Climate Ambition Accelerator (CAA) was launched by UNGC in April 2021 to scale up urgent and credible climate action across companies. The six-month learning programme aims to enable and equip businesses with the knowledge and skills they need to set science-based targets, contributing to halve global emissions by 2030 and to reach net-zero by 2050. Currently, more than 650 companies, from more than 50 countries, have taken part in the first round of the Accelerator and are working towards meaningful corporate commitments to reduce GHG emissions.

Indian context

India's own first-ever Assessment of Climate Change over India Region Report published by the Union Ministry of Earth Sciences (MoES) in 2020 has revealed that the country's average temperature is expected to rise by 4.4 degree Celsius by the end of 2100. The impact of heat wave stress is expected over the densely populated Indo-Gangetic River basin. It also says that both annual and summer monsoon precipitation will increase. A general wetting across the whole Tibetan Plateau and the Himalaya is projected, with an increase in heavy precipitation in the 21st century.

A 2020 CDP report estimates the financial impact of climate risks to Indian corporations at ₹7,13,800 and highlights that businesses cannot sustain in the long-run without addressing climate risks in their value chain. As many as 57 Indian companies have set or committed to setting Science-based Targets. Many others have set renewable energy and energy efficiency targets. Indian businesses are also increasingly putting an internal price on carbon to meet their climate targets, with 25 already pricing carbon and 33 more planning to do so in the next two years, according to CDP. While the numbers are gradually rising, the path taken by certain corporations in contributing towards achieving net zero emissions by 2050, is highly commendable.

To further accelerate the progress, UN Global Compact Network India launched the CAA in July 2021 to scale-up credible climate action across companies of all sizes and sectors enabling them to deliver on meaningful commitments to reduce emissions and deliver on the Paris Climate Agreement. The companies participating in the CAA programme from India represent a variety of sectors and include prominent ones like ONGC, Indian Oil Corporation, Sterlite Technologies, Avaada Energy, SAP India, Adani Ports & Special Economic Zone, ReNew Power and Aarti Industries.

Certain exemplary efforts deserve a special mention. Renew Power, India's leading renewable energy company, announced its commitment in April 2021 to achieving net-zero greenhouse gas emissions by 2050. ReNew's pledge aligns with the 'Race to Zero' campaign – the largest ever global alliance committed to achieving net zero carbon emissions. With this commitment, ReNew Power aims to address the global climate crisis that will drive the transition to a low carbon economy and spur the investment and innovation needed to make the net-zero goal attainable.

While individual commitments have been made by multiple stakeholders, tackling climate risks will require co-operative initiatives that inspire bold climate actions. The private sector has the potential and capacity to spur the disruptive changes that are required to achieve the objective of the Paris Agreement. Indian corporates will have to capitalise on enabling partnerships and think beyond the conventional ways to reduce GHG emissions by including science-based solutions and strategies to finance implementation of low-carbon technologies. "I call on every city, company and financial institution to adopt concrete roadmaps with clear intermediary milestones to get to carbon neutrality by 2050", said the UN Secretary-General Antonio Guterres during the remarks to the member states on priorities for 2021, in January 2021. As stated by the IPCC report, it is undisputed that human actions influenced the climate emergency we are facing. Therefore, it is our common responsibility to act urgently to limit global warming. It is our mission, it is our future, it is our only future. ◆

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Business India
'ACTIVATED RIDE'
The Success of Activa

Protecting our planet

From 2001 to 2020, India lost 1.93 MH of tree cover

TECH MAHINDRA

Greener future, better tomorrow

CELEBRATING VAN MAHOTSAV

Tech Mahindra's tree plantation drive in Pune

The world is going through extraordinary times. Covid-19 has not only redefined the way people live and work, but it has also put the priorities and approach towards holistic development under the scanner. Each sphere of life, including businesses has a role to play in responding to challenges like climate change and moving towards green digital economy by integrating sustainability and digitalisation in their business model.

Tech Mahindra has always been a company with a purpose and focussed on sustainable and equitable growth. Its sustainability framework is geared towards building an enduring business by rejuvenating environment and enabling stakeholders to benefit. As a part of the 'Business Ambition for 1.5°C', Tech Mahindra has pledged to set climate targets that align with limiting global temperature rise to below 1.5°C. Additionally, it has taken a target to increase its renewable energy mix to 50 per cent by 2025-26. The company is also part of 1.5°C Supply Chain Leaders, founded by the Exponential Roadmap Initiative, with a commitment towards encouraging suppliers to take actions aiming to halve greenhouse gas emissions before 2030. Its roadmap to become carbon-neutral by 2030 is built on science-based targets in order to bolster its commitments towards increasing renewable energy and reducing GHG emissions.

Green investments The company's green investments in LEDs, motion sensors (including energy-efficient equipment) and solar plants and power purchase agreements have helped it save energy and costs, while curbing emissions at the same time. This has also led to an increase in its renewable energy mix from 17.60 per cent in 2019-20 to 21.2 per cent in 2020-21, thereby reducing 18,900+ MTCO2e GHG emissions. It has been conducting campaigns such as #DontBePlastic to encourage employees to prevent single-use plastic and promote use of eco-friendly products.

Through awareness and advocacy programmes, it has been able to reduce paper consumption and ensure that all waste generated from its activities is reused, repurposed or recycled through authorised recyclers and vendors. This is a result of the company's robust waste management guidelines and policies and certifying facilities 'zero waste to landfill'. It has also digitalised its communications with virtual meetings through tele/audio conferencing, thereby minimising emissions caused due to business travel.

Additionally, the company has implemented an internal carbon price of $9/ MTCO2e on business units proportional to resources allocated, developed green solutions for customers such as smart cities, smart micro grid, IoT-enabled systems and used cloud computing technologies and server virtualisation techniques to reduce the impact of climate change in line with the GHG regulations.

Water is a precious resource and, hence, Tech Mahindra has installed rainwater harvesting plants to recharge groundwater levels, used water-efficient coolers including installation of water sensors and restrictors to reduce flow of water and increase water efficiency, as also savings. It has also recycled and reused more than 203 million litres of water through sewage treatment plants (STP), thereby reducing freshwater withdrawal.

The company's concentrated efforts have helped it gain many laurels including being the only Indian institution among 44 companies to be awarded The Prince of Wales' Terra Carta Seal in recognition of its commitment to creating a sustainable future; and being recognised in the Dow Jones Sustainability Indices – DJSI World Index and DJSI Emerging Market Index – for the seventh consecutive year. It is also the only Indian IT company to be recognised with a prestigious 'A' score for global Climate Change and Water Stewardship 2021 by CDP. Its sustainability endeavours have also placed it amongst the top nine Indian companies in CDP's supplier engagement rating (SER) 'A List' 2020 for environmental transparency and action. Tech Mahindra is the only Indian company to be recognised amongst the '2021 Global 100 Most Sustainable Corporations in the World' by Corporate Knights and the only Indian company to be listed in 'Carbon Clean200' Global list 2021 by Corporate Knights and As You Sow.

Tech Mahindra leads a 'Great Sustainability Reset' in every sphere of its business activities to survive, thrive and RISE in the future, as it believes that man does not inherit the earth from his ancestors; he only borrows it from his children. ◆

DHL EXPRESS INDIA

Of man and nature

Deforestation and loss of forest cover continue to be the leading causes of climate change. According to a new study by World Resources Institute (WRI), from 2001 to 2020, India lost 1.93 MH of tree cover, equivalent to a 5 per cent decrease in tree cover since 2000, which led to 951 million tonnes increase in carbon dioxide emissions, destroying local ecosystems and the ecological protections offered by green cover.

DHL Express India is the leading provider of international air express services. The company operates on the corporate responsibility strategy: 'Living Responsibility' that focusses on protecting the environment (Go Green Pillar), which is aligned with SDG-13 and the Green India Mission (GIM), one of India's missions under the National Action Plan on Climate Change. The broad objectives of DHL's Go Green Pillar are ecological restoration; protection of green cover through plantation; contribution towards carbon offsetting and air quality improvement; technological interventions for water conservation; and mitigation of natural disasters and improvement of ground water resources.

DHL has set targets for net zero carbon emissions by 2050 (Mission 2050) based on the Paris Agreement through Science-Based Targets initiative (SBTi). The company is actualising these goals through the Go Green pillar, funded by a global investment of €7 billion and 2 per cent of its national average net profit.

Since 2018, DHL has been partnering with Sankalptaru Foundation and Grow-Trees to create sustainable impact. The implementing partners facilitate urban tree plantation drives across 20 cities across India and employee engagement, planting trees on government/community land and rural plantation. The partners have been selected, based on their alignment with the DHL CSR strategy, Mission 2050 goals, government initiatives, geographical presence and due diligence parameters. Through Go Green initiatives, DHL fosters partnerships between local non-profit organisations, government and local bodies, as well as local communities for smooth programme implementation.

Planting trees The programme uses the approach of promoting robust village institutions that can effectively address the degradation and low productivity of land. One such intervention was the plantation of 25,000 endemic fruit-bearing trees at the Sitamata Wildlife Sanctuary, restoring the habitat of endangered Indian giant flying squirrels, while also achieving enhancement of bio-diversity, groundwater recharge, controlling soil erosion and generating employment opportunities for villagers.

Through the planting of 42,000 fruit-bearing trees across India, Go Green was able to change the lives of women like Lilabai Natha Kulhad, a sole breadwinner of a family. By planting 340 orange trees and installing drip irrigation, Go Green ensured stable income and water availability all year round. Drip-irrigation, carried out in collaboration with Sankalptaru, has saved ~18 million litres of water per annum in drought-prone regions.

Since 2018, Go Green has generated ~16,000 workdays worth of work. Rahman Shaikh, who belongs to a minority community and looks after four family members, is a daily wage labourer, who was struggling to find work due to the pandemic. Through this intervention, Go Green involved Shaikh and his young sons in plantation work. Rahman has been instrumental in leading awareness drives with local school students to instill the importance of trees in his village.

Till November 2021, 850+ employees have been a part of the Go Green initiatives, contributing about 3,043 hours to the green cause. Since physical interventions became limited after the Covid pandemic, the programme pivoted to virtual mode, celebrating World Earth Day, conducting recycling workshops and making seed-bomb diyas among many others in collaboration with partners such as Dopology, Grow Trees and Sankalptaru. 'Walk for Green Planet' was a week-long campaign arranged as part of the World Environment Day celebrations at DHL and employees had to walk 50,000 steps in a week to get a tree planted. Some 32 employees volunteered for the campaign walking more than 1.9 million steps over 64 hours.

Till end of 2020-21, the Go Green programme was being implemented in 15 states across India and had achieved plantation of 0.2 million trees, creating 182 hectares of green cover and sequestering 400 tonnes of CO_2 every year. In near future, programme plans to plant 0.1 million trees in rural areas and 20,000 trees in urban areas in India keeping up with DHL global target planting 5 million trees by 2025. ◆

CRISIL FOUNDATION

Tree of life

Wangari Maathai, winner of the 2004 Nobel Peace Prize said, "What a friend we have in a tree. The tree is the symbol of hope, self-improvement and what people can do for themselves." There is no bigger symbol of resilience and renewal than Mother Nature herself.

Since 2015, CRISIL Foundation, the CSR arm of the company, has channelised the energy of CRISILites towards the company's environmental conservation efforts through CRISIL Re, its flagship programme. It is now focussed on preserving the forests, mitigating climate change and its impact through afforestation efforts and other supporting initiatives that positively impact 'life on land' – a key United Nations Sustainable Development Goal (UN SDG #15).

Urban afforestation Launched on 16 February 2015, CRISIL Re is a flagship initiative of the CRISIL Foundation to commit itself towards the cause of environment conservation. At present, CRISIL Re projects are focussed on urban afforestation. Re is also a platform to constructively engage employees and their families, friends and relatives in environment conservation.

CRISIL has explicitly articulated its commitment to environmental, social and governance (ESG) agenda and the CRISIL Re programme perfectly dovetails to support the 'environment' aspect of ESG.

At present, CRISIL Re is focussed on the idea of promoting urban afforestation. It started with parks and other public places, school campuses and office spaces in cities, where CRISIL's offices were located. Subsequently, as the importance of this agenda increased, the focus expanded to large plantation sites along with urban pockets – therefore, it expanded into areas immediately surrounding the city limits. These plantation sites provided opportunities to undertake large plantations – upwards of 10,000 saplings at a single location.

CRISIL has emphasised on planting both native and fruit bearing trees, along with trees that provide timber (to promote forest-based livelihood activities for the local communities). As native trees not only provide environmental benefits, but also preserve and promote flora and fauna in the catchment areas, CRISIL has also made them central to its afforestation agenda. The tree audit & geo-tagging exercises which have been undertaken twice, over the past five years, also attest to this fact.

At a few plantation sites, CRISIL has adopted 'Miyawaki' – a Japanese method of afforestation to create 'urban forests' using native varieties. The right selection of native forest species has helped revive local forest vegetation – these sites are now teeming with bio-diversity.

Till date, CRISIL has planted over 110,000 trees – largely comprising native species across Mumbai, Pune, Gurgaon, Chennai, Hyderabad, Kolkata and Bengaluru. Depending on the species diversity and the survival rate of the plantations, the trees are expected to offset 1.6 million kg of carbon dioxide every year once they fully mature. The focus on long-term impact and sustainability is yielding dividends, as the initiative has grown organically over the six years.

Post-plantation monitoring and oversight are key to track sustenance, survival of the trees and ensure long-term sustainability of the initiative. Maintenance activities include setting up irrigation lines to enable water supply, regular watering of planted saplings, digging of the soil and mulching to lock in moisture, replanting to compensate for dead saplings (if any), as well as cutting grass and digging trenches to prevent forest fires. The plantations are maintained for a period of one-three years, depending on the species, location, and availability of natural resources.

As a best practice, a sample number of trees (across locations) are geo-tagged and audited for carbon sequestration through an independent agency. Over 64,000 trees (of the total 110,000 trees planted) have been geo-tagged so far. The exercise has revealed that CRISIL has adhered to its 'return to the natives' approach, planting over 90 per cent native species.

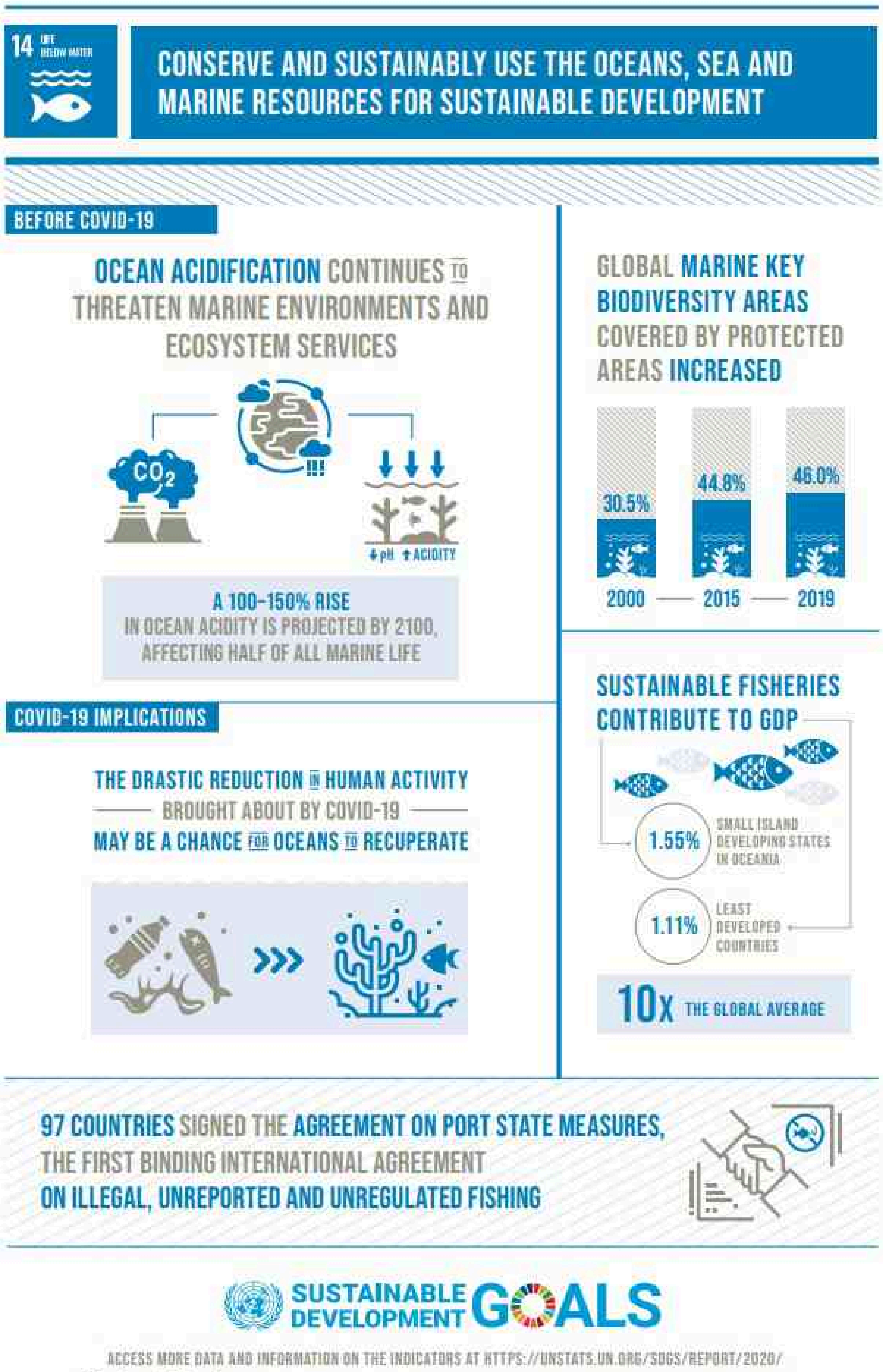
Keeping in mind sustainability of the plants, CRISIL recently has initiated creation of water structures (bunds and farm ponds) in its large plantation sites. In the spirit of having an 'exit strategy' for environmental projects, the company believes this will go a long way in ensuring long-term maintenance of the plantations.

CRISIL strives to build a strong environment conservation agenda by partnering with like-minded NGO partners focussed on environment conservation and the young, energetic employees. An inherent focus on people and planet, along with profits, is truly the key tenet towards building a sustainable India and a resilient global economy. ◆

2015
2017
2020

From barren to fertile: How green is my land now

Goal: Conserve and sustainably use the oceans, seas, and marine resources for sustainable development



CONSERVE AND SUSTAINABLY USE THE OCEANS, SEA AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

BEFORE COVID-19

OCEAN ACIDIFICATION CONTINUES TO THREATEN MARINE ENVIRONMENTS AND ECOSYSTEM SERVICES

A 100-150% RISE IN OCEAN ACIDITY IS PROJECTED BY 2100, AFFECTING HALF OF ALL MARINE LIFE

CO_2
↓pH ↑ACIDITY

GLOBAL MARINE KEY BIODIVERSITY AREAS COVERED BY PROTECTED AREAS INCREASED

2000	2015	2019
30.5%	44.8%	46.0%

SUSTAINABLE FISHERIES CONTRIBUTE TO GDP

1.55% SMALL ISLAND DEVELOPING STATES IN OCEANIA

1.11% LEAST DEVELOPED COUNTRIES

10X THE GLOBAL AVERAGE

COVID-19 IMPLICATIONS

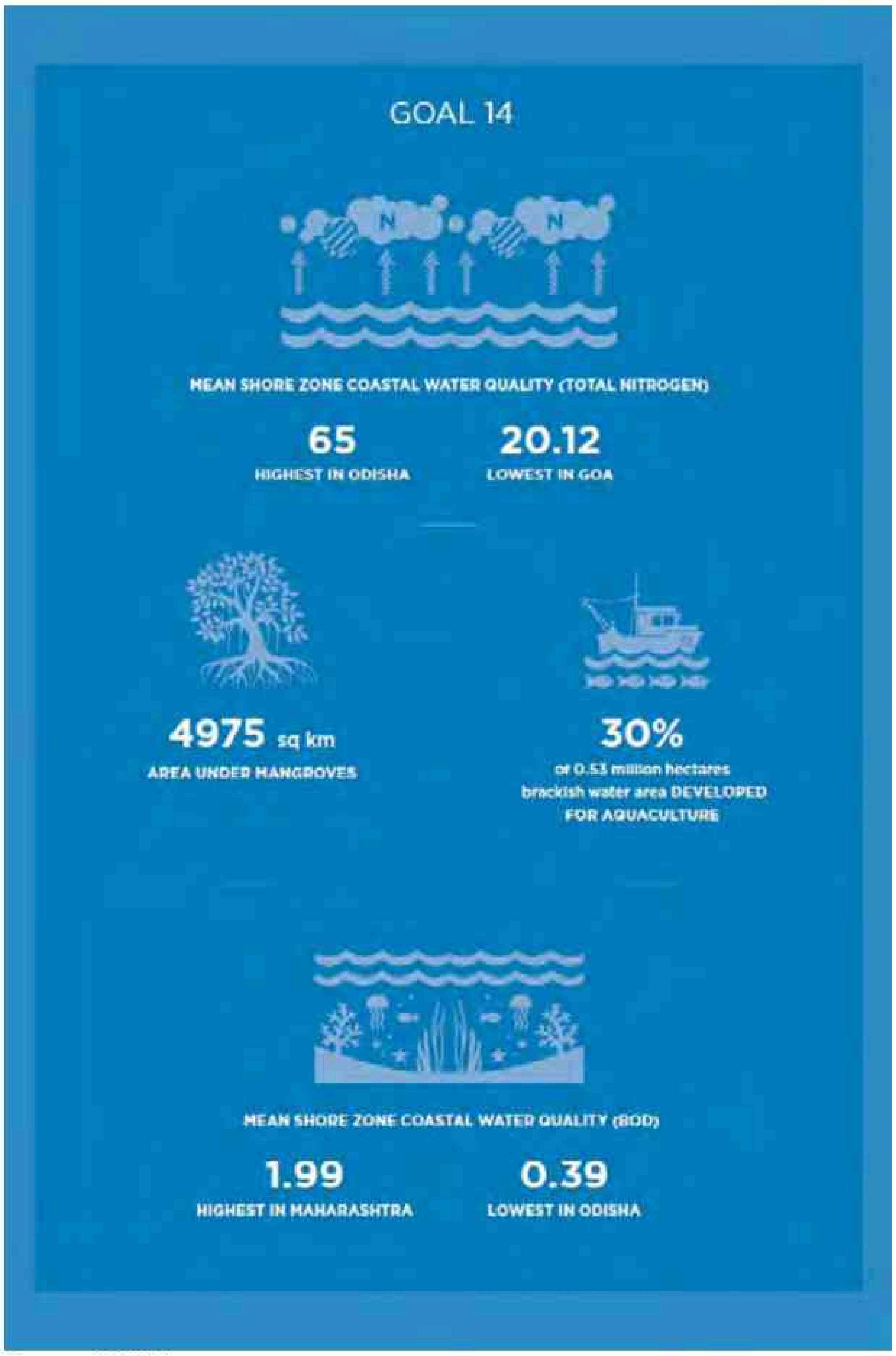
THE DRASTIC REDUCTION IN HUMAN ACTIVITY BROUGHT ABOUT BY COVID-19 MAY BE A CHANCE FOR OCEANS TO RECUPERATE

97 COUNTRIES SIGNED THE AGREEMENT ON PORT STATE MEASURES, THE FIRST BINDING INTERNATIONAL AGREEMENT ON ILLEGAL, UNREPORTED AND UNREGULATED FISHING

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 14

MEAN SHORE ZONE COASTAL WATER QUALITY (TOTAL NITROGEN)

65
HIGHEST IN ODISHA

20.12
LOWEST IN GOA

4975 sq km
AREA UNDER MANGROVES

30%
of 0.53 million hectares brackish water area DEVELOPED FOR AQUACULTURE

MEAN SHORE ZONE COASTAL WATER QUALITY (BOD)

1.99
HIGHEST IN MAHARASHTRA

0.39
LOWEST IN ODISHA

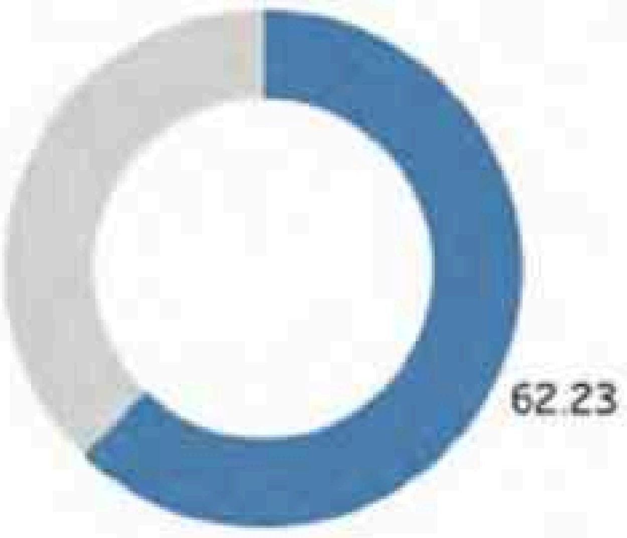
Source: NITI Aayog

14 LIFE BELOW WATER

Country Rank

70/165

Score



UN Dashboard Status

Major challenges ●

Trend

Moderately improving ↗

The 2030 targets include:

1. Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

2. Sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

3. Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

4. Effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

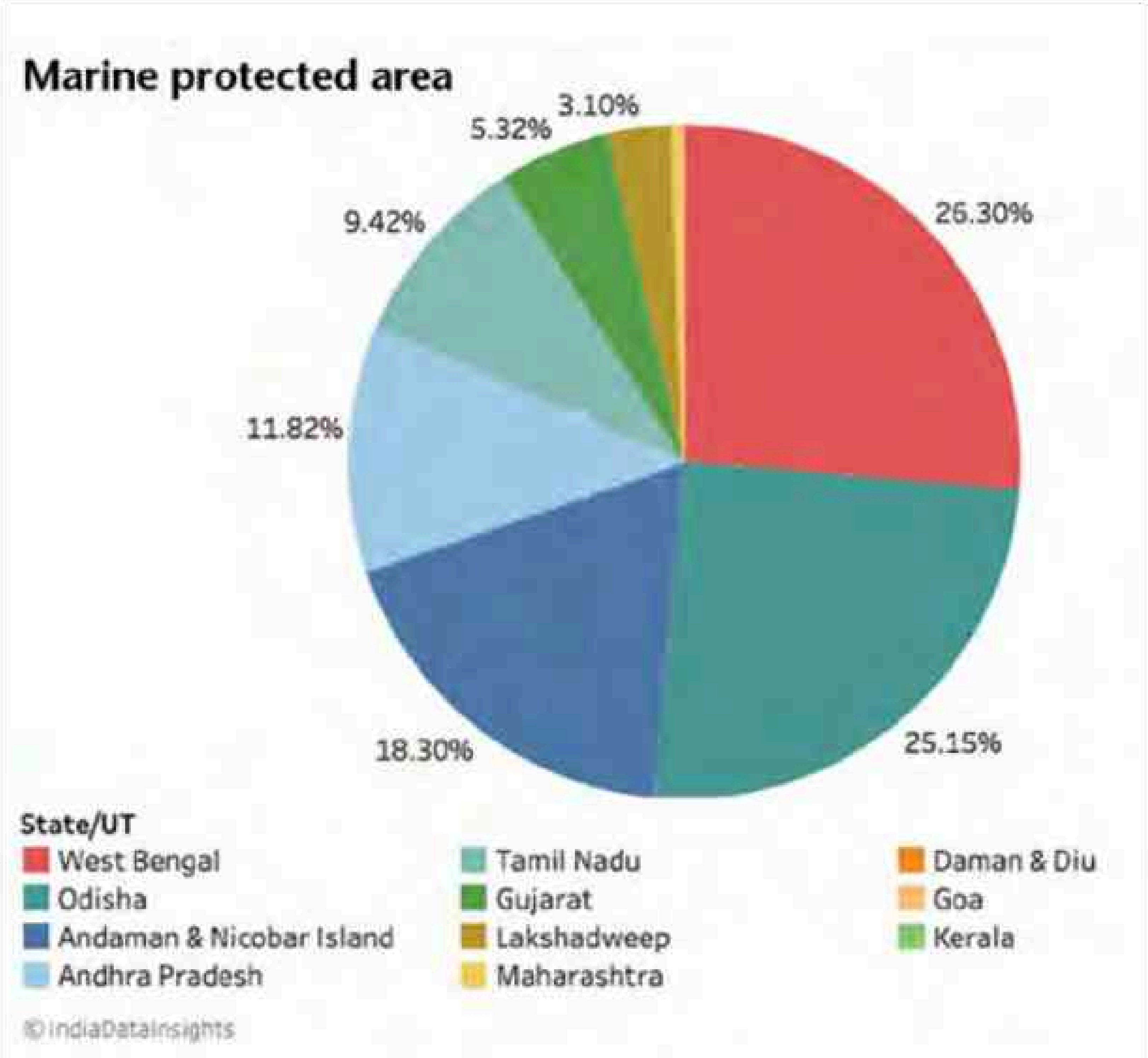
5. Conserve at least 10 percent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

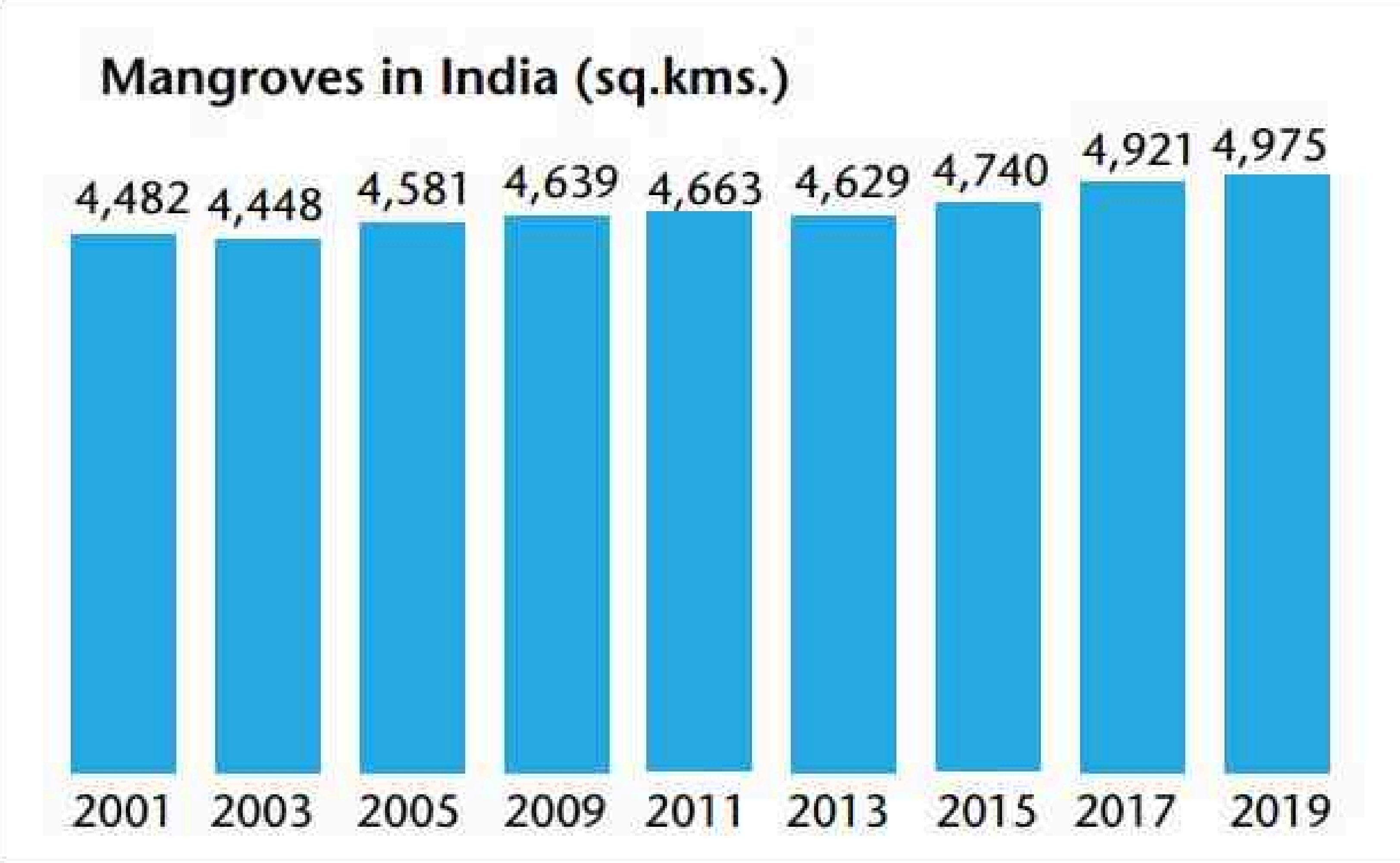
6. Prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies

Based on current progress, India ranks 70th in the world for Life Below Water and is moderately improving in terms of its conservation efforts.

Coastal Protection

Ensuring life below water begins with protecting marine areas. In India, this is achieved through the Marine Protected Area (MPA) network, which has been used to manage natural marine resources for biodiversity conservation and the well-being of the people dependent on them. While India has identified 129 MPAs, this accounts for less than 0.3 per cent of the total geographic area. 26 per cent of the total Indian MPA lies in West Bengal, followed by 25 per cent in Odisha and 18 per cent in Andaman & Nicobar Islands.





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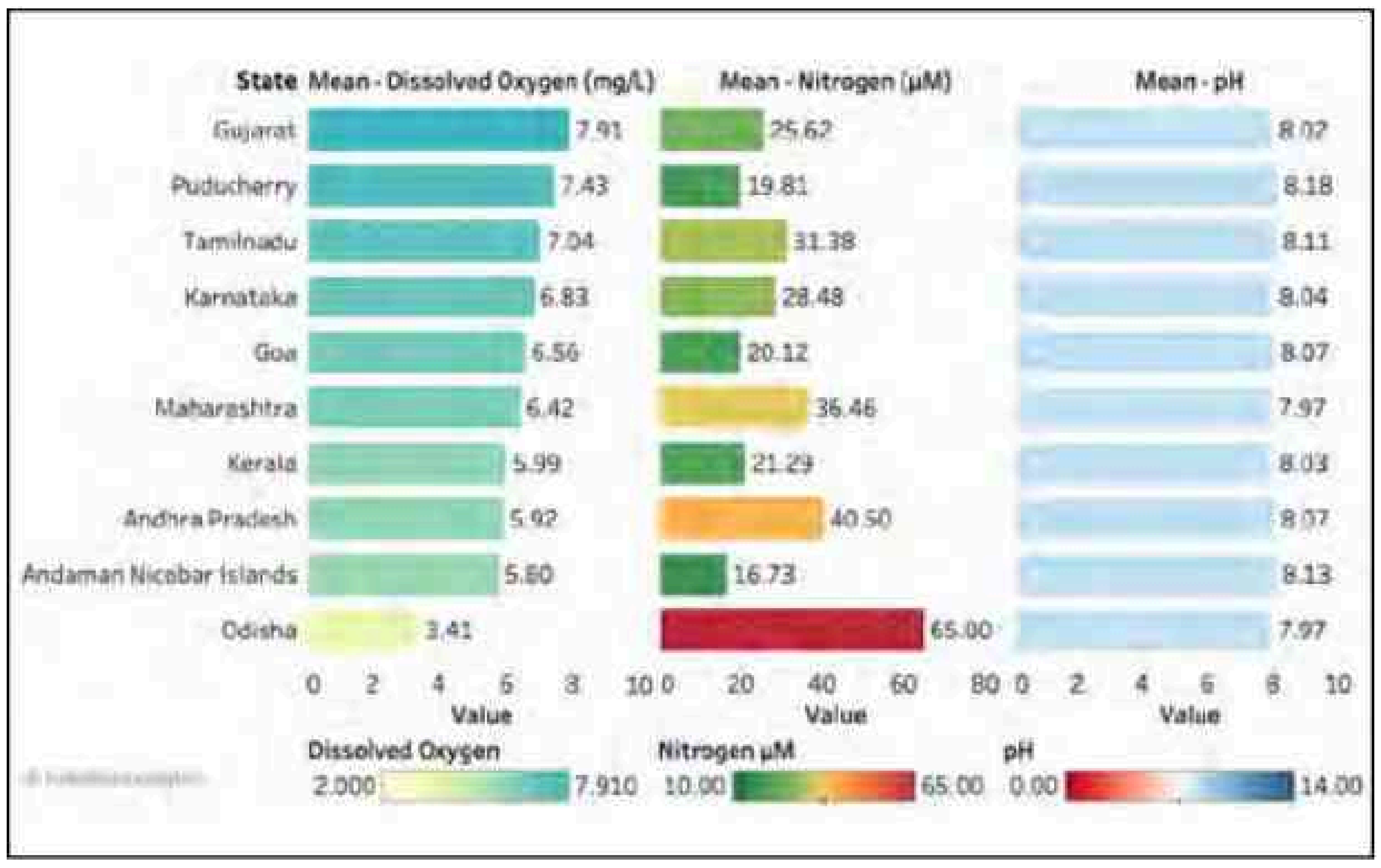
The MPA coverage in West Bengal also helps protect India's mangroves, 42 per cent of which are present in that state. Mangroves are rich in biodiversity; they protect the coastal areas from tsunamis, soil erosions, and storm surges. They also provide a livelihood to coastal communities.

India's mangrove cover has been steadily increasing in the last two decades. Since 2001, about 493 sq.kms. of mangroves have been added to the Indian coasts.

Water Quality

Alongside protecting coastal environments, ensuring quality water in coastal waters and rivers can help improve life below water. Three important parameters which determine the quality of seawater are – dissolved oxygen, nitrogen content, and pH of the Water. In India,



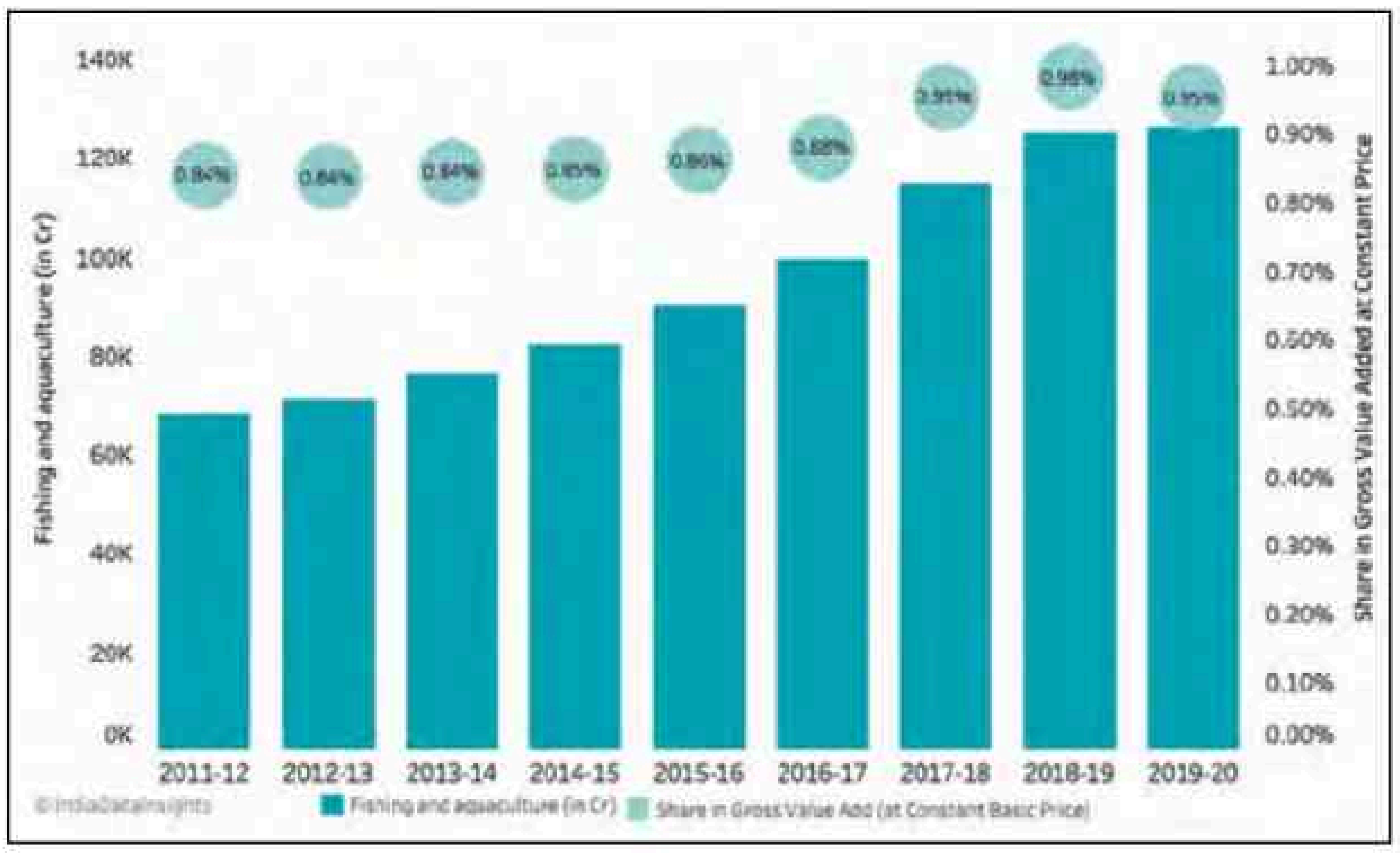
Odisha has very low levels of dissolved oxygen at 3.41 mg/L and extremely high levels of nitrogen, 65 µM. This combination of low dissolved oxygen and high nitrogen presents a big threat to the region's marine ecosystem.

In Indian rivers, a pH value in the range of 6.5 - 8.5 is considered safe for living organisms, with many aquatic organisms and plants adapting to specific water pH. The Central Pollution Control Board data showed that in 2019, Water in River Ganga was acidic with an average pH value of 6.05 (min 2.2 – max 9.9) while River Krishna had an average pH value of 8.25 (min 6.6 – max 9.5), making it very alkaline, and harmful to aquatic life.

Aquaculture and Fishing

Sustainable fishing is critical to ensuring life under water. As of 2020, fishing and aquaculture constituted 0.95 per cent of India's total Gross Value Added (GVA), a 40 per cent increase since 2011-12. By 2020 its share had increased to ₹1,26,370 crores, an 85 per cent increase from 2011-12.

The significant growth in fishing and aquaculture is a result of India becoming the second largest fish producing country in the world, with 7 per cent of the world's total fish production. In 2019-20, India produced 14,164 thousand tonnes of fish, with 74 per cent coming from Inland fisheries and 26 per cent from Marine fisheries. However, despite a 250+ per cent increase in fish production, the share of marine fish production has declined. With India's fishing and aquaculture industries booming, it's more important now than ever to ensure our institutions continue to regulate the usage of coastal areas and ensure sustainable fishing practices to ensure we meet our SDG-14 targets.



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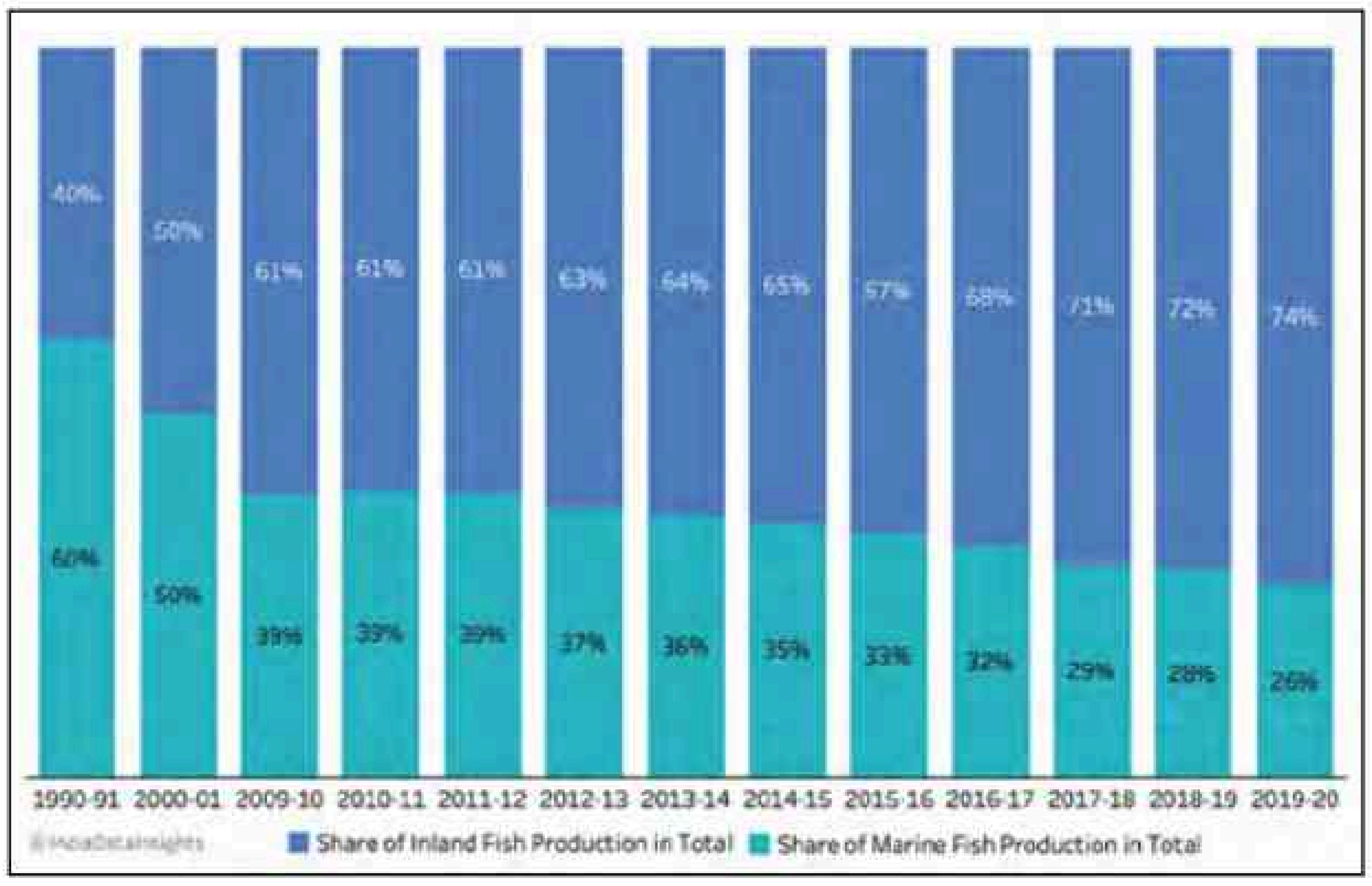

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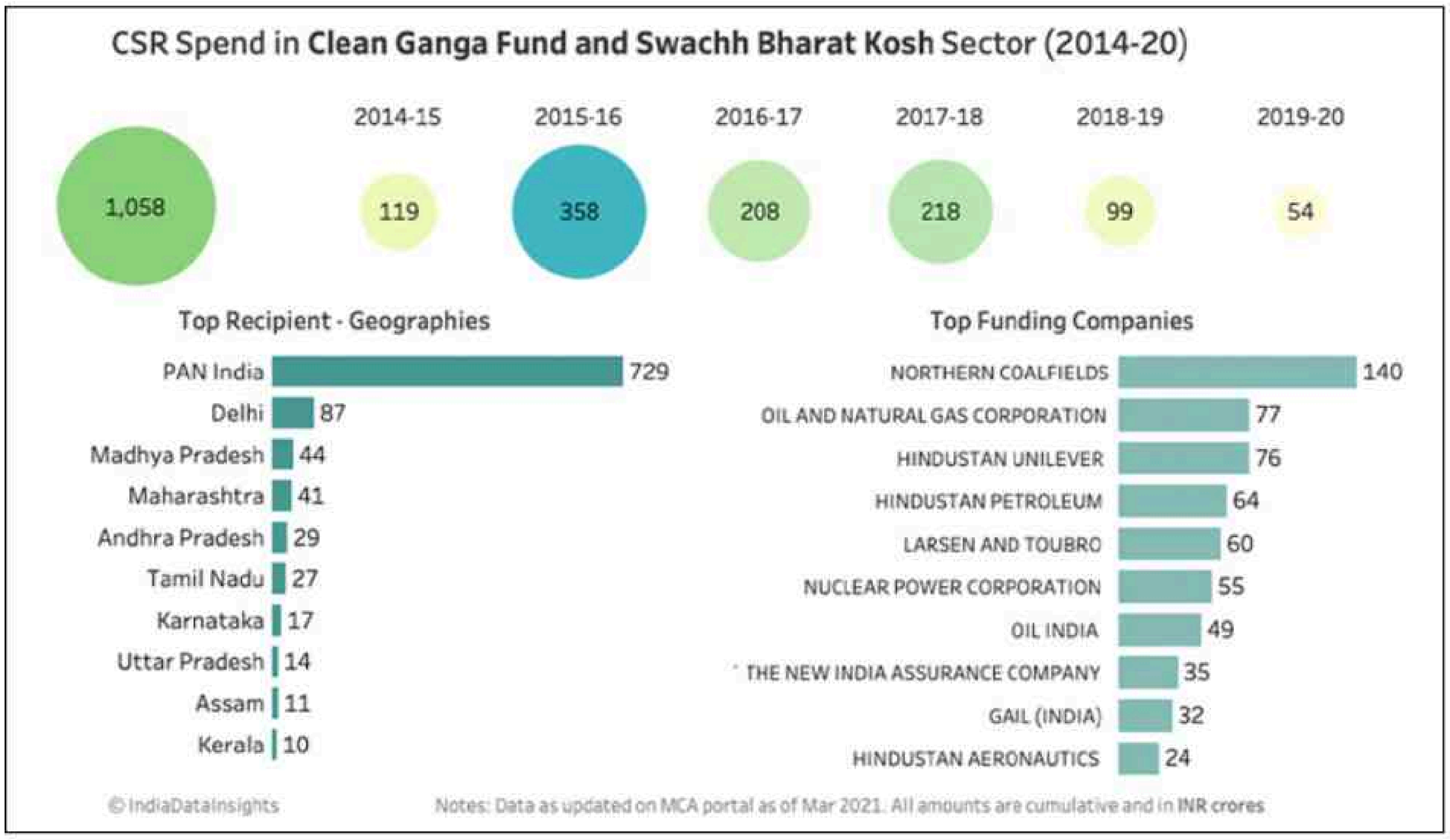
CORPORATE CONTRIBUTION



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Notes: Data as updated on MCA portal as of Mar 2021. All amounts are cumulative and in INR crores

Although SDG-14 aims to conserve and sustainably use the oceans, seas, and marine resources for sustainable development, the quality of river water too plays an important role in preserving marine life. Projects related to Clean Ganga and Swachh Bharat Kosh are some of the sectors where corporates are spending their CSR funds. Between 2014 and 2020, ₹1,058 crores were invested to these sectors.

The largest share of funds (34 per cent) was contributed in the year 2015-16 – ₹358 crores. The Top 5 corporate contributors include Northern Coalfields, ONGC, Hindustan Unilever, HPCL, and L&T. While 70 per cent of the CSR funds spent in this sector have been for pan-India projects, the top 3 receiving states include: Delhi, Madhya Pradesh, and Maharashtra.

Deep insights about ecosystems…

… and how they complement business-led action

Dr. SANJAY DESHMUKH

The author is Professor, Life Sciences & Former Vice-Chancellor, University of Mumbai

The well-known UNSDG framework emerged in response to a felt need to tackle environmental externalities perceived by nations across all geographies. It evolved through an iterative and inclusive process, with scope for synergies, over a 15-year period to start with. It is designed to 'Leave No One Behind', including citizens and systems of governance; recognising the value of concerted action that addresses quality of life considerations of all. Importantly, this views humans, all life forms and ecosystems on equal footing.

SDG-14, Life below Water, addresses the fact that, we as land-based species depend on water for aspects of life and livelihood, which we hardly fathom. More than 200,000 species have been recognised in the oceans, while the actual number could be in millions. As much as 91 per cent of ocean species are reportedly yet to be categorised and 95 per cent of the ocean investigated. Oceans absorb over 40 per cent of the carbon dioxide produced by humans, helping to mitigate the effects of global warming. They are also the world's largest supplier of protein, with over 300 crore people relying on the seas for their primary protein source. Unregulated fishing contributes to the rapid extinction of many fish species and obstructs efforts to conserve and restore global fisheries and related jobs, resulting in ocean fisheries generating $50 billion less annually than they could. Human activities have impacted up to 40 per cent of the world's oceans, including pollution, diminished fisheries, and the loss of coastal habitats. In 2010, the International Union for Conservation of Nature (IUCN) declared 21 per cent of all fish species reviewed, to be at risk of extinction around the world. Yet, about 3.5 billion people depend on marine and coastal biodiversity for their livelihoods. The global market value of marine and coastal resources and industries at approximately $3.4 trillion/year, equivalent to about 5 per cent of global GDP, establishes this fact.

Challenges for India and India Inc: The improved conservation and sustainable use of coastal, marine, and oceanic bio-diversity presents a number of challenges, such as:

- **Habitat destruction:** Large development and infrastructure projects along the coast, as well as unplanned and unregulated growth in coastal areas, have been the driving force behind coastal deterioration. Mangrove forests, estuaries, mudflats, coral reefs, small island ecosystems, coastal headlands and cliffs, coastal wetlands, sand dunes, and other ecosystems and essential habitats are continually under threat.
- **Bio-resource overexploitation:** Living bio-resources in the coastal zone are heavily exploited, and the exploitation is often unsustainable. Sea cucumbers, mollusks, and sea horses are among the prohibited species. There is almost no information about the exploitation of any of these species;
- **Pollution:** The coastal zone collects trash from a variety of point and non-point sources, including sewage, industrial effluents, sediment, and other pollutants. These contribute to the degradation of the quality of coastal waters;
- minimising of the negative effects of natural and artificial pressures on ecologically and biologically sensitive places (EBSAs);
- lack of public knowledge of the benefits derived from marine and coastal biodiversity;
- governance issues arising from sectoral and fragmented methods, such as those relating to the administration of common property resources.
- lack of awareness and sensitivity to the issue of marine and coastal biodiversity among the judiciary, policymakers, decision-makers, and administrators, as well as poor integration of marine and coastal biodiversity concerns in the legal aspects of Environmental Impact Assessment processes;
- the inherent difficulty of dealing with numerous drivers of biodiversity loss due to the spatial dispersion of causes and effects;
- multiple and often competing interests e.g., fishing, extractive industries, tourism, conservation, land-based industry, and agriculture; and
- lack of capacity to address these challenges

SDG-14 asks of us to "conserve and sustainably use the oceans, seas and marine resources for sustainable development". Equally important is the centrality of oceans' ecosystem functions and services that determine local, regional, and regional scale wellbeing. This is due to the interface of oceans with land, freshwater and transition systems that are unique by themselves. Pollutants from shipping activities, proposed deep sea mining, and trans-boundary movement of chemical and biological perturbations compound challenges further. Ocean change and related marine heat waves and climate change phenomena reportedly intertwine and enhance fragility of habitats of bio-entities. The sixth assessment report of the Intergovernmental Panel on Climate Change (IPCC), the global assessment report on biodiversity and ecosystem services and observations presented by NASA in the public domain reinforce these circumstances.

The overarching SDG-14 for 2030 is robust with 10 mutually reinforcing targets to tackle the stated and emerging challenges. We have eight years at hand to deliver on these fronts – seven of which are 'outcome targets'. They aim to accordingly reduce marine pollution and resultant acidification protect and restore ecosystems; not over-exploit fish and other bioresources in oceans and, therefore, address subsidies and other market mechanisms that allow such depredation, conserve coastal and marine areas; and enhance value and economic benefits from sustainable use of marine resources. The other three are 'means of achieving' targets. They call for efforts to increase scientific knowledge, research and technology for ocean health; support small scale fishers; and implement and enforce international sea law. The consequences of inaction on these fronts on the physical, chemical and biological functional dynamics of the oceans are well-known.

India has addressed these issues consistently over the years. We have taken note of the Aichi Targets and related Convention on Biological Diversity and devised a network of protected areas. Recent efforts of the Ministry of Environment, Forest and Climate Change in partnership with the UN Development Programme (UNDP), involves the Green Climate Fund. Related assessments for the benefit of coastal communities and systems and trans-boundary coalitions and World Bank's Multi-Phase Approach (MPA) for Enhancing Coastal and Ocean Resource Efficiency (ENCORE) and integrated coastal zone management initiatives are well-known. India's NDC reiterates her holistic systems-related perspectives. Her community-led initiatives on mangroves as blue carbon sinks are a case in point. India has always argued for integrated conservation and development gains. This is also reflected in the first 'draft of the post' 2020 global biodiversity framework. This was deliberated at the third meeting of the open-ended working group in September 2021 under the auspices of the Convention on Biological Diversity (CBD).

Businesses can strengthen government-led holistic preventive and amelioration initiatives to secure integrated economic and environmental gains. They could enhance their ESG profiles through stewardship actions that support national missions. This will help risk-adjust financial returns to investors and enhance value for collective benefit. We have to enrich our management decisions with credible insights from reality checks on ecosystem functions seamlessly across seascapes and landscapes. SDG-14 outcomes are determined by concomitant outcomes targeted by SDGs 1, 8, 9, 11, 12, 13 and 16 in particular.

International innovations: To achieve SDG-14, companies will need to build a new 'blue economy' with sustainable start-ups and technologies that can scale up and tackle the ocean's great concerns in active partnership with the scientific community and relevant government organisations. When looking at the following innovative technologies developed by various corporations, a route to healthy, appreciated, and understood oceans seems in sight:

- **Catalina Sea Ranch, California, USA:** The first offshore shellfish ranch in federal waters of the United States, with plans to expand into aquaculture (seafood farming). When done on a large scale, it has the potential to relieve strain on wild fisheries while also providing significant net benefits to our ocean and coastal economies.
- **Bakey's, India:** A company that makes 'Edible spoons,' which come in a variety of flavours: savoury, sweet and plain and are designed to disrupt plastics in the water. Plastic alternatives and bio-plastic items, such as these edible spoons, could help alleviate ocean plastic waste, improve human health and be tastier.
- **Floating offshore wind farm, Scotland:** This is 'the' product if we want to reinvigorate port communities while also reducing acidity and climate-related dangers to marine life. It lowers the cost of utilising offshore wind energy, which is more powerful and consistent than onshore wind. Their USP is that they employ fewer materials than standard seabed-stabilised offshore windmills.
- **'Dives under the ice in Antarctica'**: The New York Times has released a series of virtual reality videos that allow users to experience Antarctica's severe water habitats in a more customised way. The videos can be shown as tools to develop empathy for critical ocean habitats and inspire a new generation of ocean ambassadors, because Antarctica is a location that most people will never get the chance to visit.
- **'Healthy soils initiative', USA:** California's Office of Environmental Farming and Innovation started this effort to reform how farm soil is managed to reduce fertiliser use, retain water, improve harvests, and store more carbon. With this initiative, the volume of damaging farm runoff pollution that generates large ocean 'dead zones' could be reduced. In the end, land and sea are inextricably linked.
- **Innovative 'fishing technologies', Norway:** A Norwegian team developed an innovative fishing technology for sampling the size and type of fish to be caught, which included the development of an air canon that could launch a net into a larger fishing net so that fishermen could use the sample to decide whether or not to haul in the sampled catch. The award-winning

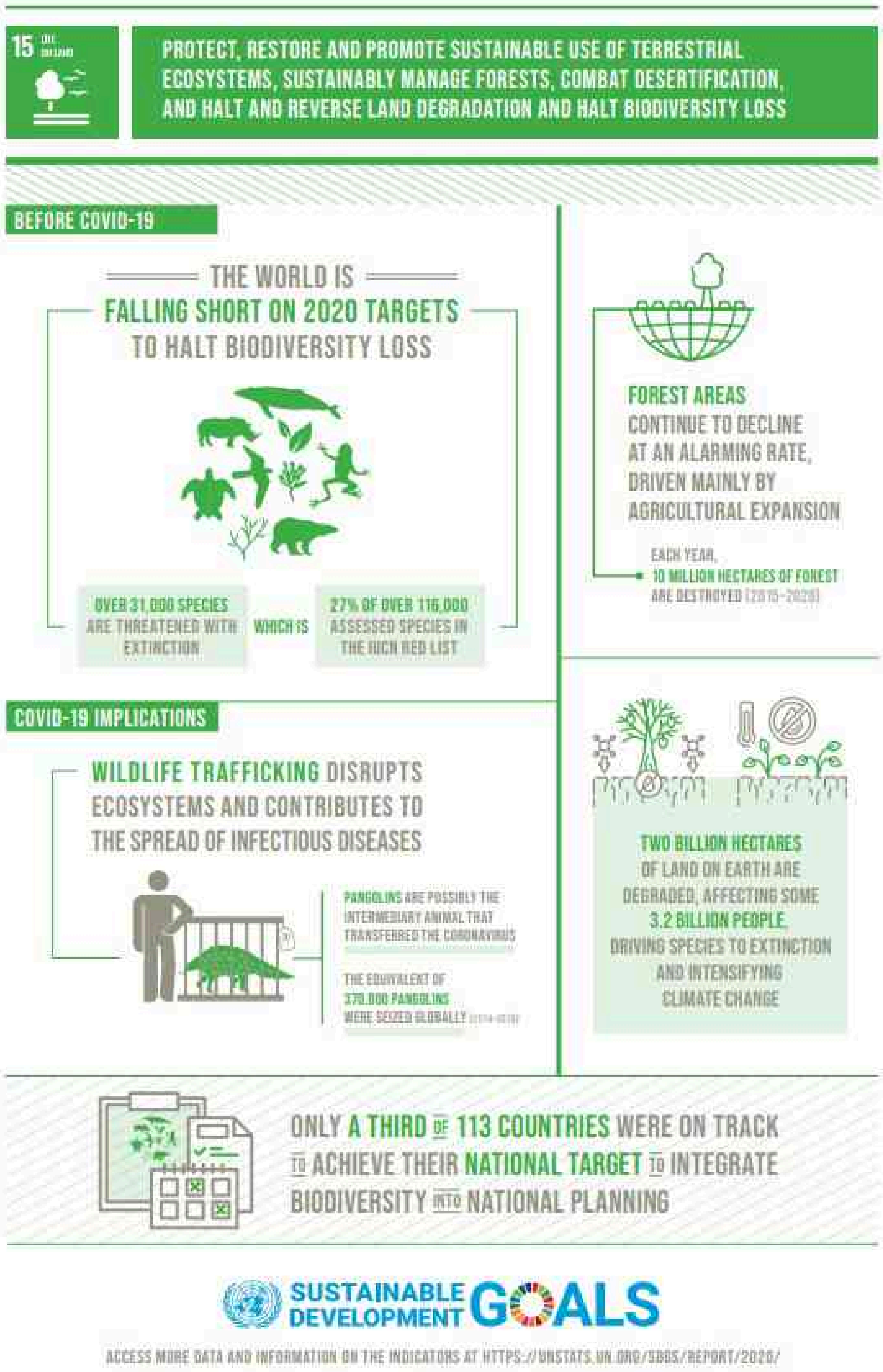
device not only improves fishing efficiency, but also helps to prevent 'by-catch,' which occurs when marine creatures are accidentally trapped and killed.

- **'Dock to Dish', Norway:** A concept based on the model of Community Supported Fishing (CSF) eliminates the complex and sometimes shady multinational seafood processors and industrial fishers in favour of a direct interaction with local fisherman who catch 'more sustainable' seafood.
- **Tagging wildlife to protect habitats:** The National Oceanic and Atmospheric Administration (NOAA), an American scientific and regulatory agency, has been conducting this innovative exercise with the goal of better understanding and protecting critical habitats and assisting endangered wildlife species in avoiding deadly interactions with fisheries and other threats. This innovative exercise is proving lifesaving for even the most mobile animals in the ocean, including whales and sharks. This cutting-edge tagging and tracking technology will aid in the conservation of marine life by revealing the hidden lives of these creatures.
- **'Synergy'- an MIT spin-off, USA:** Over 96 per cent of biodiversity-rich coastal locations in countries bordering oceans have a sewage pollution problem that creates a hazardous mix for both human health and ecosystems. Solving this problem by developing 'Breakthrough toilets' may also be a significant economic opportunity. These 'franchised toilets', which were built in Kenya, demonstrate the surprising worth of human waste by collecting it and converting it into useful items like fertilisers.
- **'AUV' for exploration of deep sea off Antarctica:** It is predicted that the 21st century will be the golden age of ocean exploration, thanks to enhanced technology and dedicated personnel. Some 95 per cent of the oceans have yet to be mapped at a high resolution. An autonomous underwater vehicle (AUV), dubbed 'Boaty McBoatface' has been built for research purposes, which uses AI, robotic craft, and diving drones and can survive the frigid temperatures and hull-crushing pressures required to investigate the deep depths.
- **'EXOSUIT atmospheric diving system':** Nuytco Research in Canada devised and developed this unique technology for aspiring aquanauts to dive to 300 metres, while maintaining dexterity. With advancements in artificial gills, re-breathers, submersibles, and 'exosuits,' humans could make enormous progress in near future towards Jacques Cousteau's vision of a new underwater species, 'Homo aquaticus'.
- **An 'all-electric, autonomous ship'**: The shipping industry is the leading source of worldwide carbon emissions, and it is anticipated to rise by a factor of ten unless significant changes are done. Kongsberg, an international technology company that provides high-technology systems to customers in the merchant marine, defence, aerospace, offshore oil and gas, renewable energy, and utilities industries, has revealed plans for an all-electric autonomous ship that will soon replace bunker-fuel-powered vessels.
- **The 'Fish Rules' App:** This was conceived and built to help fishing communities comply with fisheries and catch limit regulations, as well as visualising and broadcasting enormous volumes of ocean data to produce useful services like port efficiency and sustainable fishing. This app, in addition to the other apps listed above, condenses saltwater fishing rules into an easy-to-understand format that can assist fisherman in viewing the bottom with their phones and determining water quality.
- **Anticipatory research and innovations:** The 'Sea-steading Institute' in California, USA, held a floating city design contest with an innovative concept that might house climate refugees fleeing rising sea levels. These 'cities' could not only holistically solve many of the human-ocean interaction concerns, but they could also function as innovative hubs for ocean exploration and conservation with possibly new kinds of governance. The ocean is a lot more exciting second home than Mars, in any case.

India's coasts and marine systems lend themselves to adaptation interventions that can build on indigenous conservation knowledge systems of communities. This is based on perpetual dependence and conservation ethos embedded in marine ecology in many cases. Ethno-fisheries signify this opportunity. Businesses in India can capture the 'Make in India' impetus to complement government's initiatives on bioresources management and deep-sea investigations. The SDG India Index and Dashboard present a comprehensive view of opportunities to create and strengthen the groundswell of integrated mitigation and adaptation outcomes.

The Inter-governmental Oceanographic Commission Criteria and guidelines on the Transfer of Marine Technology is an important focal point to address issues of ocean health. This dovetails with conservation and sustainable use of oceans, approaches inspired by the UNCLOS. These have implications for marine bio-prospecting and sustainable extraction and conservation regimes at the interface of trade and benefits sharing. Bio-rights paradigms can be suitably adapted to create business models that reward conservation outcomes. India's Blue Revolution initiatives referred above is yet another gateway for industry to reinforce coastal and marine biodiversity and infrastructure planning to propel development. ◆

Goal: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

BEFORE COVID-19

THE WORLD IS FALLING SHORT ON 2020 TARGETS TO HALT BIODIVERSITY LOSS

OVER 31,000 SPECIES ARE THREATENED WITH EXTINCTION WHICH IS 27% OF OVER 116,000 ASSESSED SPECIES IN THE IUCN RED LIST

FOREST AREAS CONTINUE TO DECLINE AT AN ALARMING RATE, DRIVEN MAINLY BY AGRICULTURAL EXPANSION

EACH YEAR, 10 MILLION HECTARES OF FOREST ARE DESTROYED (2015–2020)

COVID-19 IMPLICATIONS

WILDLIFE TRAFFICKING DISRUPTS ECOSYSTEMS AND CONTRIBUTES TO THE SPREAD OF INFECTIOUS DISEASES

PANGOLINS ARE POSSIBLY THE INTERMEDIARY ANIMAL THAT TRANSFERRED THE CORONAVIRUS

THE EQUIVALENT OF 370,000 PANGOLINS WERE SEIZED GLOBALLY (2014–2018)

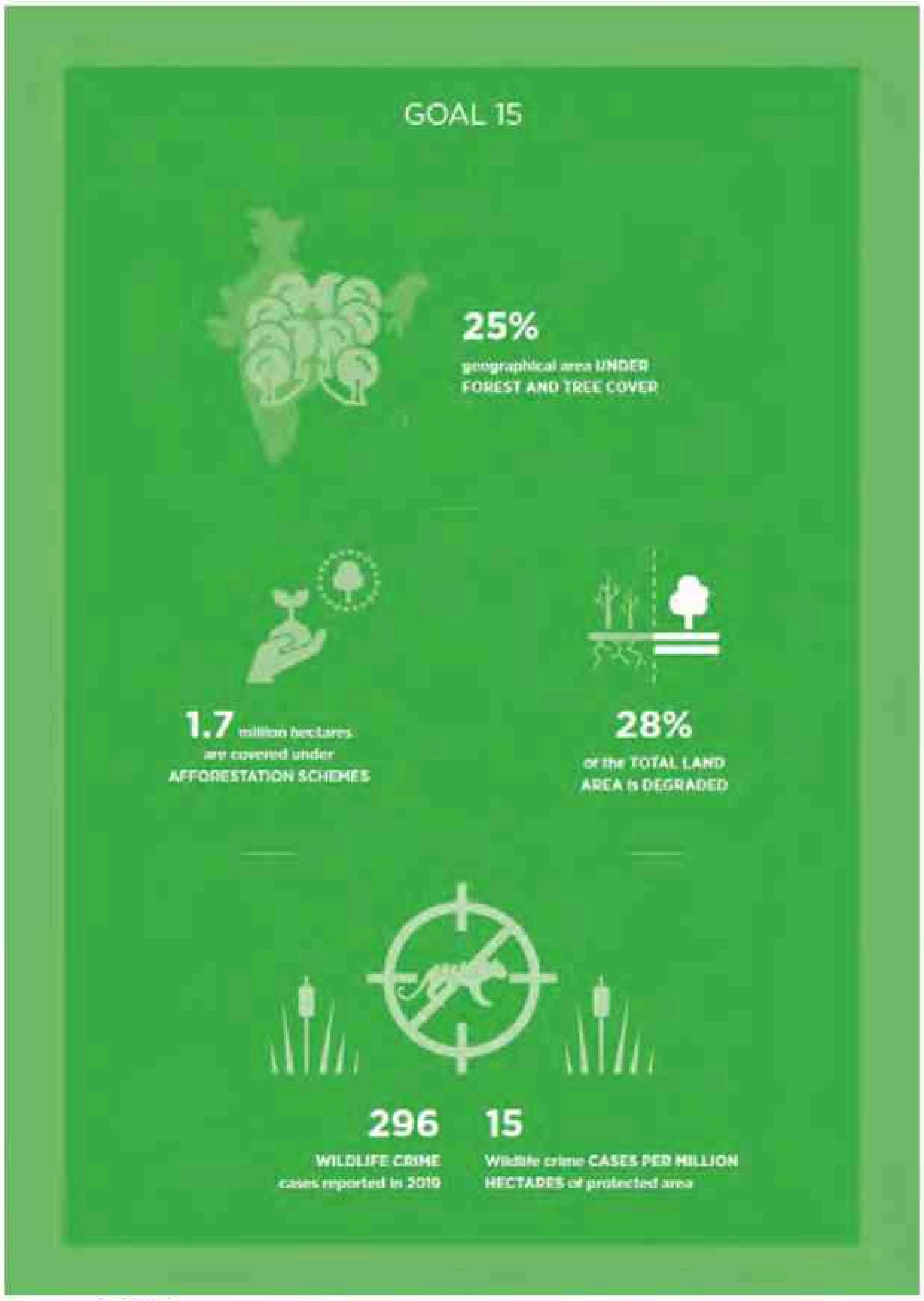
TWO BILLION HECTARES OF LAND ON EARTH ARE DEGRADED, AFFECTING SOME 3.2 BILLION PEOPLE, DRIVING SPECIES TO EXTINCTION AND INTENSIFYING CLIMATE CHANGE

ONLY A THIRD OF 113 COUNTRIES WERE ON TRACK TO ACHIEVE THEIR NATIONAL TARGET TO INTEGRATE BIODIVERSITY INTO NATIONAL PLANNING

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 15

25% geographical area UNDER FOREST AND TREE COVER

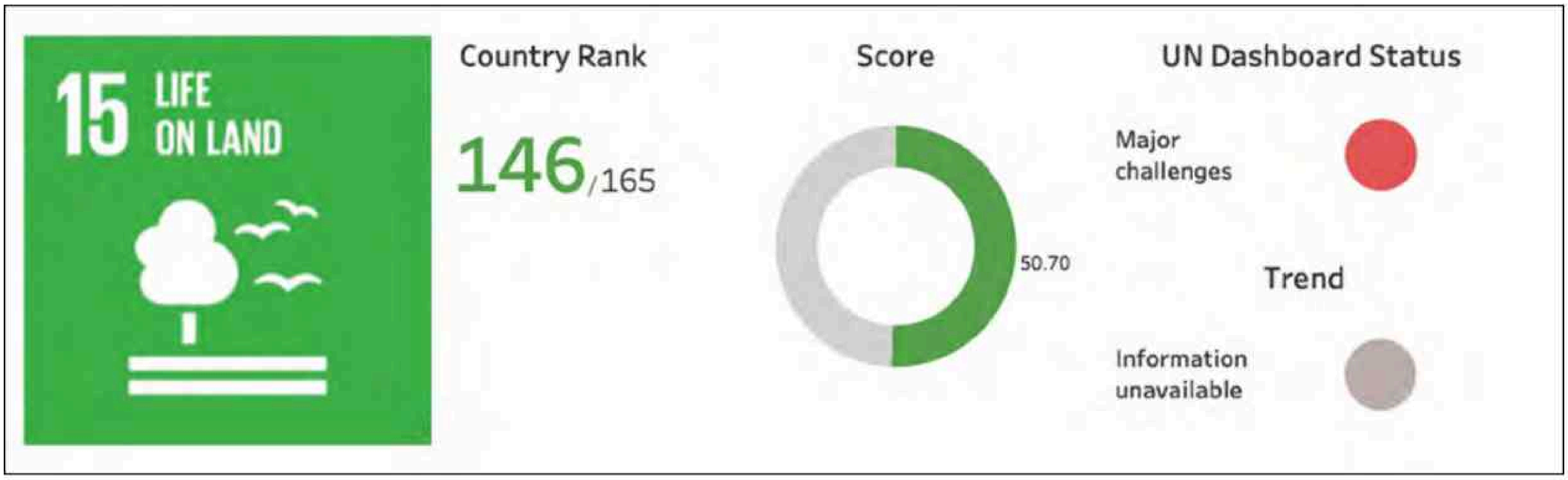
1.7 million hectares are covered under AFFORESTATION SCHEMES

28% of the TOTAL LAND AREA is DEGRADED

296 WILDLIFE CRIME cases reported in 2019

15 Wildlife crime CASES PER MILLION HECTARES of protected area

Source: NITI Aayog

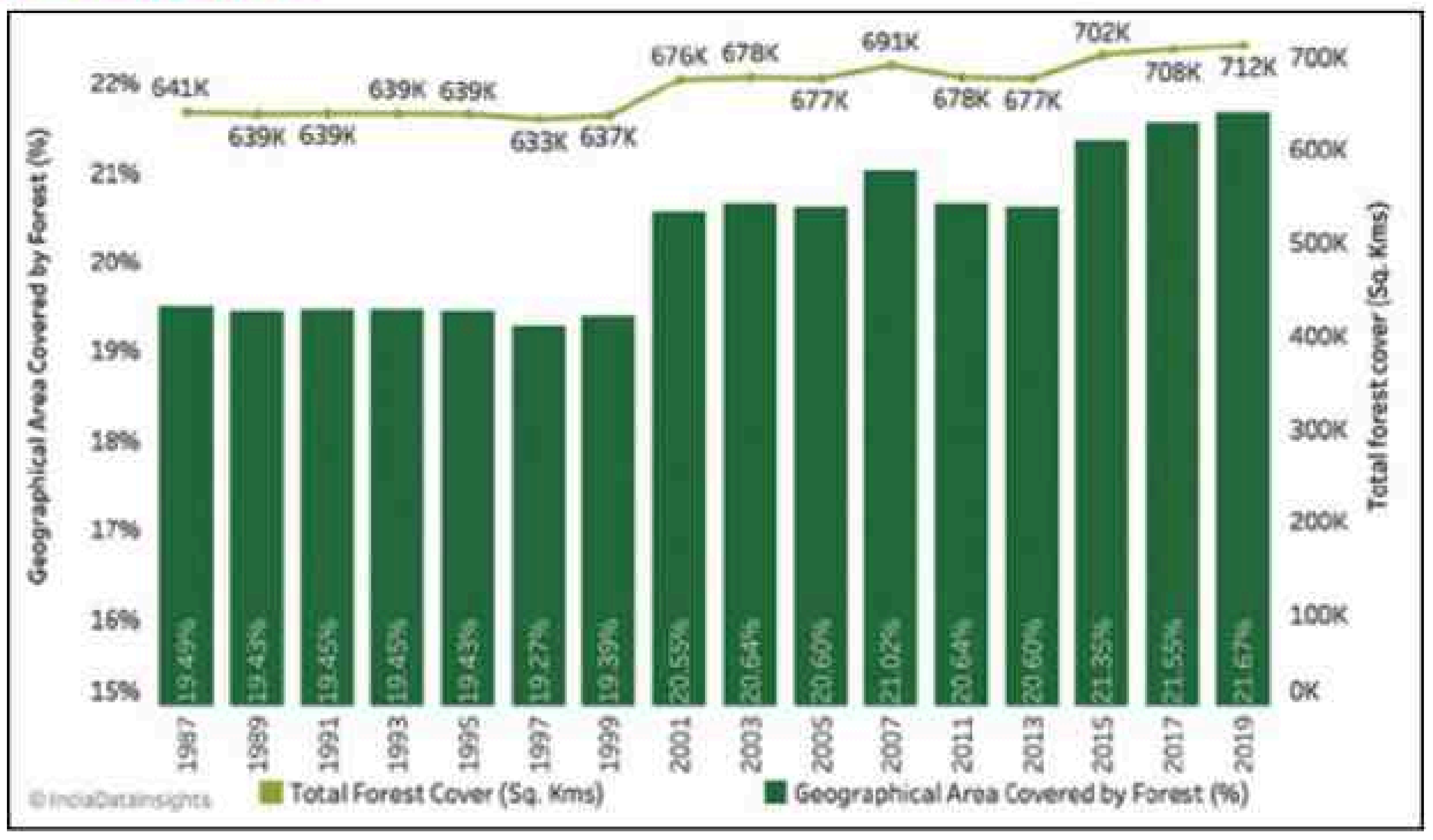


India is ranked 10th in the world for forest cover, making this SDG a significant priority, not only within the nation but on a global scale. To this effort, 9 key target areas have been identified for 2030:

1. Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
2. Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
3. Combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
4. Ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development
5. Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, protect and prevent the extinction of threatened species
6. Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed
7. Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products
8. Introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species
9. Integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

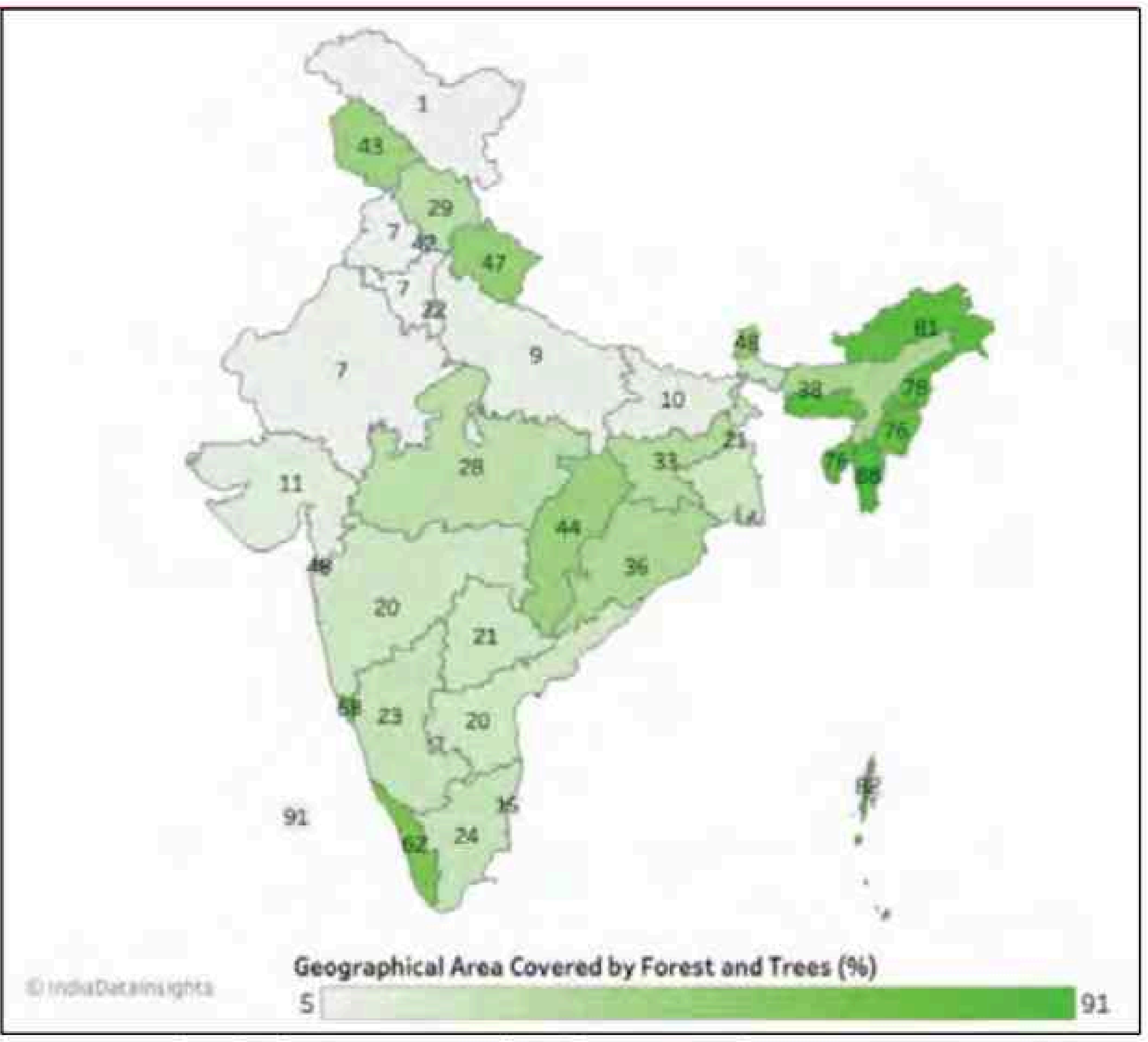
In 2021, India was ranked 146th in the world for Life on Land, with major challenges ahead and little information available.

Forest cover

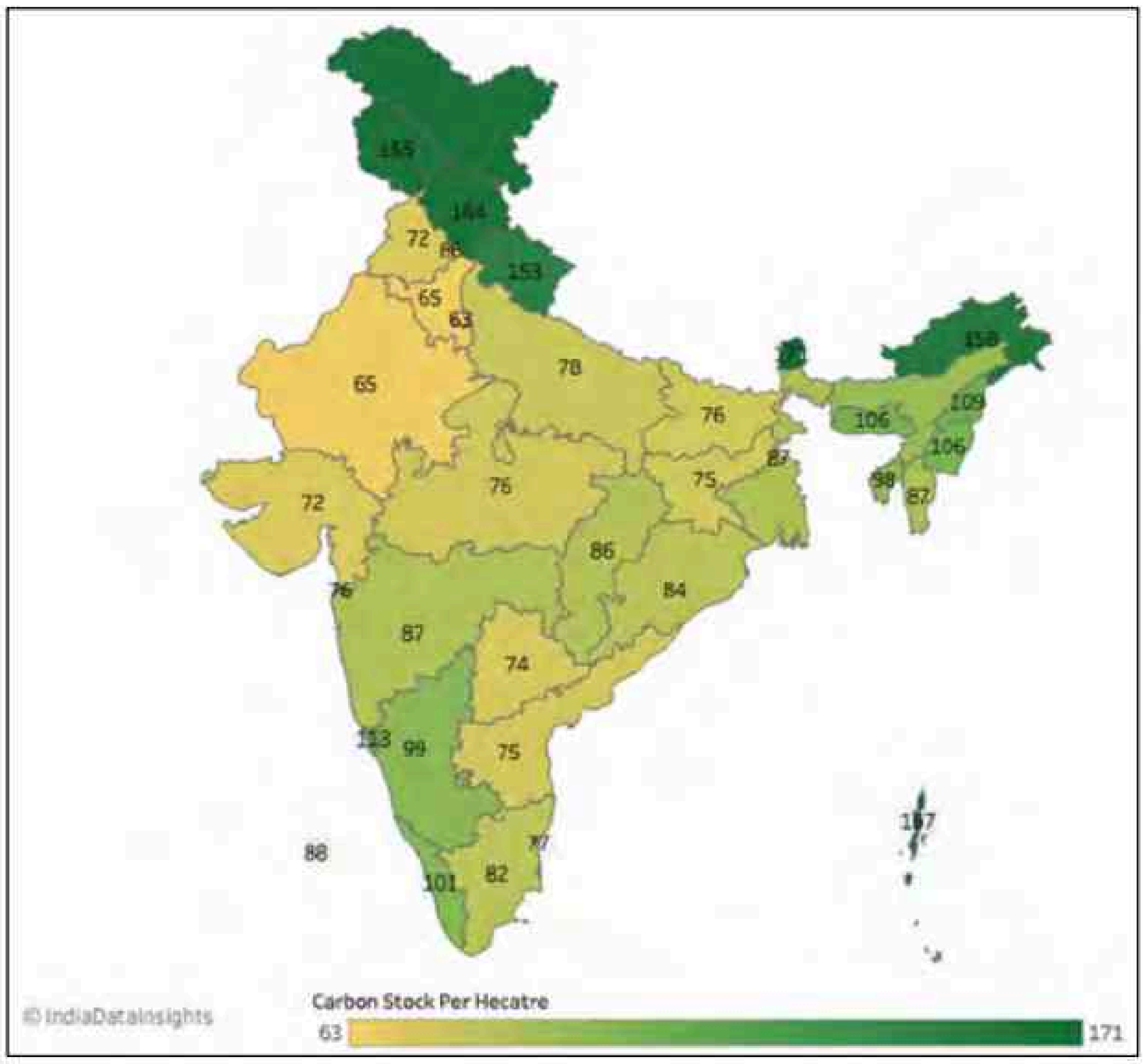


Forest cover in India has seen an increase in the last two decades, growing to 21 per cent of the nation's geographical area as per reports by the Forest Survey of India. This is a positive sign given the country's target to achieve 33 per cent forest cover. The current forest area comprises 43.3 per cent moderately dense forest, 42.7 per cent open forest, and 13.9 per cent very dense forest.

Along with the increase in forest area, tree cover has grown by 1,35,000 sq.km. in the last two decades. This has resulted in 24.56 per cent of India being covered in forests and trees.



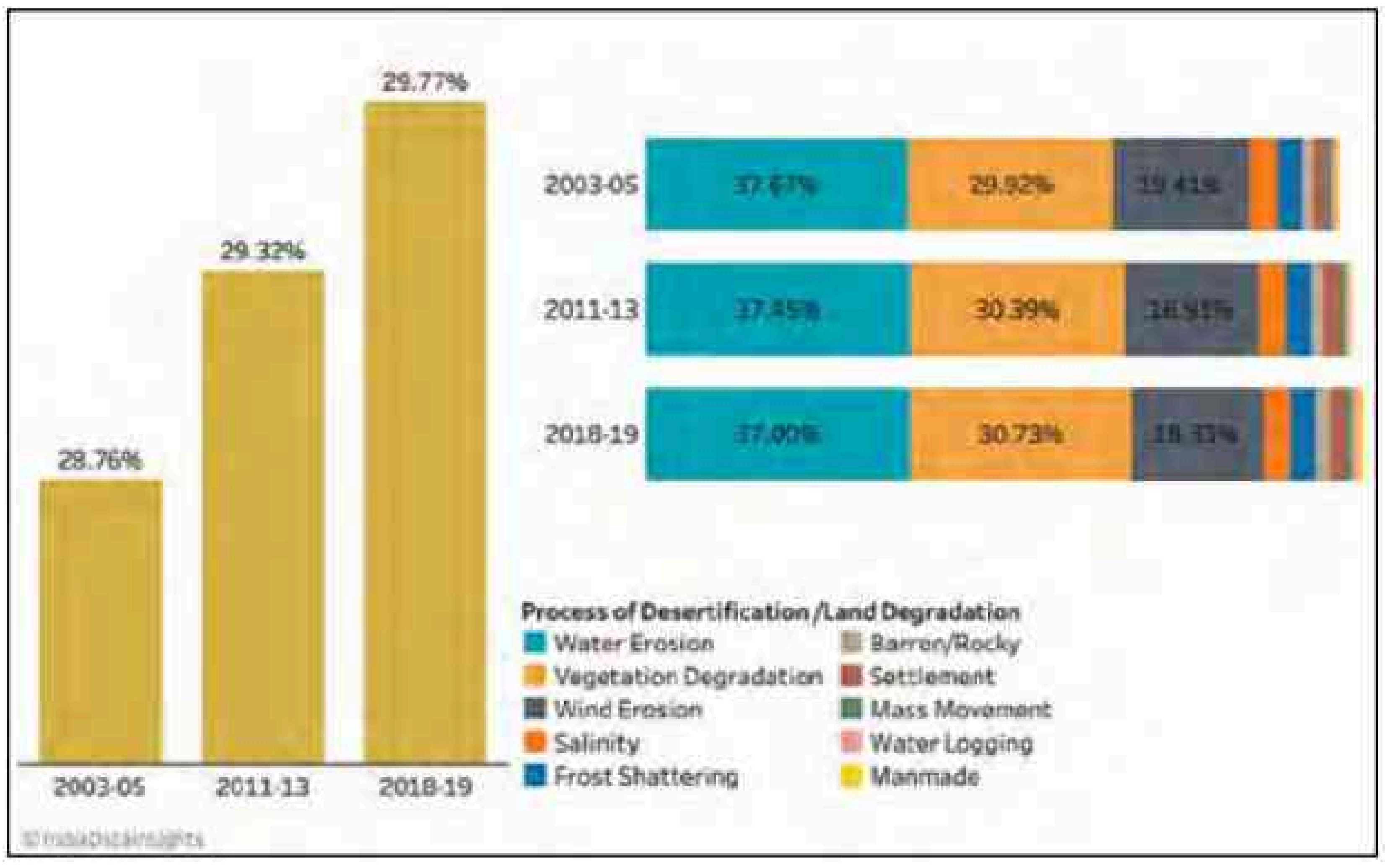
State-wise distribution of forest cover, however, is skewed. For example, India's north-eastern states have more than 75 per cent of their geographical area covered in forests and trees, while this number is



significantly lower in Punjab, Haryana, and Rajasthan with just 7 per cent of their geographical area covered in forests and trees. In Ladakh, it is just 1 per cent, owing to its climatic conditions.

Along with the promising signs of forest cover, India has a carbon stock of 7,124 million tonnes. Carbon stock plays a vital role in climate change. Higher the carbon stock better is the environmental health of an area. Sikkim leads among the states with the highest carbon stock per hectare of 171. Hilly states like Jammu & Kashmir, Himachal Pradesh, Uttarakhand, and Arunachal Pradesh also have significantly high per hectare carbon stock of more than 150. Rajasthan, Delhi, and Haryana have the lowest per hectare carbon stock – between 63 and 65.

While forest cover is growing in some regions, 97.85 million hectares (mha) of India's total geographical area of 328.72 mha underwent land degradation by 2018-19, according to the Desertification and



Land Degradation Atlas of India. Water erosion, vegetation degradation, and wind erosion are the three major contributing factors that account for 84 per cent of the degradation between 2003 and 2019.

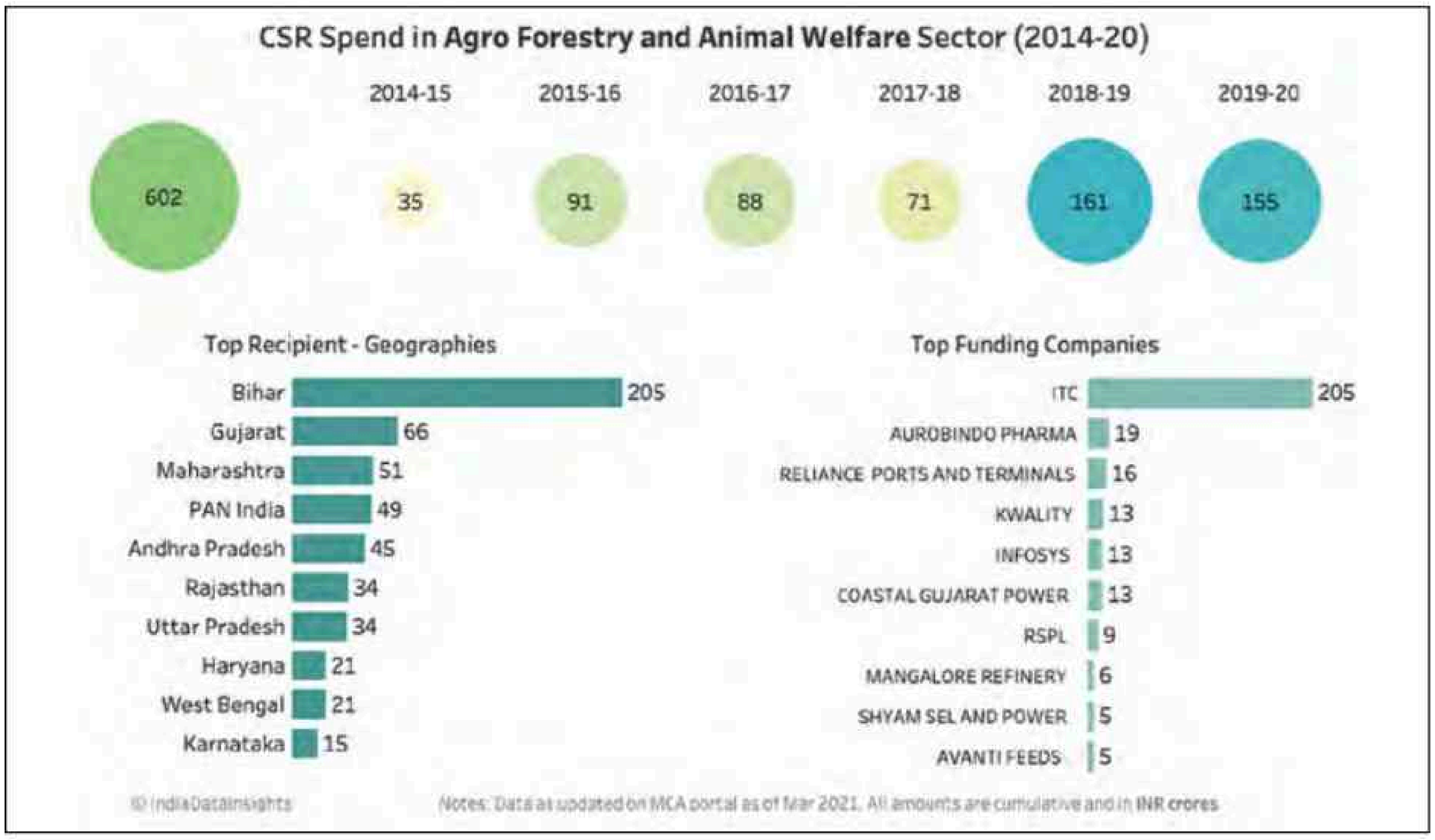
Protecting Life on Land

Protected areas play a significant role in controlling poaching and trafficking of protected species of flora and fauna. As of 2021, nearly 5 per cent of India's geographical area was categorized as protected (terrestrial). Wildlife sanctuaries comprise 74 per cent of the terrestrial protected area, while National Parks comprise 26 per cent. Since 2004, terrestrial protected area in India has increased by 8,903 sq.kms, which is a promising sign.

The increasing terrestrial protected area has also helped preserve and enable the growth of the tiger population in India, which has doubled since 2006. As of 2018, India has a total tiger population of 2,967, an increase of 1,557 since 2006. 35 per cent of India's tigers are found in the two states – Madhya Pradesh (526) and Karnataka (524). Uttarakhand state has seen 148 per cent increase, the highest growth in tiger population.

With the consistent increase in tiger population and forest cover, India is showing signs of growth that may only be sustained by continuous efforts by the government and private sector entities.

CORPORATE CONTRIBUTION

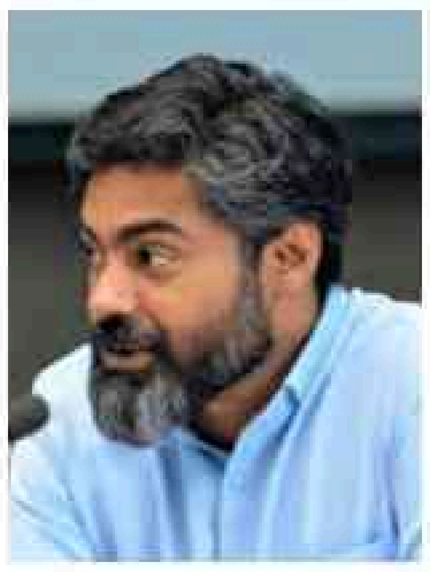


Notes: Data as updated on MCA portal as of Mar 2021. All amounts are cumulative and in INR crores

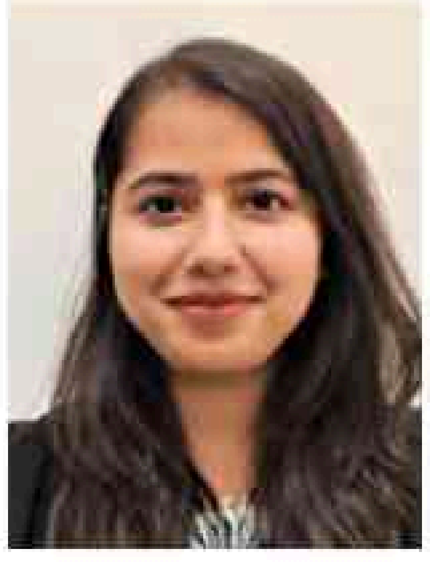
One of the targets of SDG-15 is to protect, restore, and promote sustainable use of terrestrial ecosystems and sustainably manage forests. Two sectors which closely map to this SDG are Agro Forestry and Animal Welfare. Between 2014 and 2020, ₹602 crores have been contributed to these sectors through CSR funds. One-third of this investment was made by ITC alone. At ₹205 crores, Bihar has been the largest beneficiary of CSR investments in Agro Forestry and Animal Welfare sector, followed by Gujarat and Maharashtra.

Creating shared value

Private sector can hasten the achievement of SDG-15



KARTHIK CHANDRASEKAR



ASHNA RUSTAGI

Chandrasekar is founder-partner, Sangam Ventures; Rustagi is analyst, Sangam Ventures

According to the Sustainable Development Report 2021 by the Sustainable Development Solutions Network, India's 2021 SDG score is 60.07 (on a scale of 0-100, with 100 signifying achievement of all goals). It has dropped from a score of 61.9 in 2020, while India's rank has also slipped three positions in a year to 120 in 2021.

While India is progressing well towards SDG-6 and SDG-7, sadly, the same cannot be said for SDG-15. The UN defines SDG-15 as 'protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss'.

By 2050, 95 per cent of earth's land will be degraded, if we continue on the current path. Today ~25 per cent of the total land area globally (in India ~30 per cent) is degraded, affecting 3.2 billion people, especially rural communities, small-holder farmers and the poor. Given its disproportionate effect on the poor and marginalised farmers, not acting now will lead to loss of property, life, and mass migrations.

India is experiencing reversals in progress towards SDG-15, mirroring the global trend. Globally, this is attributed to deforestation, threat to biodiversity and unsustainable supply chains.

Why should we care? Most of Climate Change is anthropogenic (driven by human activity). We as a civilisation are hopelessly helpless in weaning ourselves off our climate-altering habits, rapidly getting disassociated from nature, as our planet hurtles towards ecological collapse. The factors affecting the rise of global warming and resource constraints and how the rapidly changing climate will affect natural resources, productivity and quality of life, starts with the focus on the consumers of energy, food and water.

The world's population is expected to grow to 10 billion in 2050 and, to meet future food demand of this growing population, we need to increase our food production by 50 per cent. But we need to do this without putting incremental pressure on our land and natural resources and without harming our environment. Losses of vegetation, as also water and wind erosion, are the leading causes of land degradation/ desertification.

To leapfrog into a more sustainable future, the way we produce, distribute and consume food and our relationship with the land and the people that feed us needs to change. We need to move from an extractive to a regenerative pathway for development of agriculture by helping farmers invest in their soils through conservation agriculture practices and better watershed management, preserve local biodiversity and reduce the GHG footprint and eliminate waste from the agriculture value chain. To ensure permanence and inclusiveness of the impact generated, we need solutions that build climate resilient communities that preserve local cultures and biodiversity, allowing us to truly live in harmony with nature.

While NITI Aayog has been tasked with the adoption and monitoring progress towards the achievement of SDGs by 2030, it is not possible by government initiatives alone and requires a strong partnership between government, private sector and civil society, especially when it comes to SDG-15 – amongst the three least prioritised sectors by corporates.

People, planet and profits: All businesses are dependent on and have impacts on our land-based ecosystems. Businesses need to evaluate their entire supply chain and mainstream innovations in their core activities that are putting incremental pressure on our natural resources, threatening biodiversity (marine, terrestrial or freshwater), leading to deforestation or degradation to ensure we create irreversible and long-term impacts at scale and 'un-disturb' balance in the ecosystem.

Unlocking sustainable businesses presents a $12 trillion economic opportunity, out of which $2.3 billion is for food & agriculture! Not only do businesses help bridge the financing gap towards a hopeful future, but they also act as an impetus for creating new economic and livelihood opportunities and drive innovation into the economy through their products and services to improve the quality of the consumers in a meaningful way. They are also agile and can leverage localisation of SDGs, which is one of the major challenges in India, but critical towards achieving the goals.

Of course, the most prominent way, and one that provides scale, is through CSR activities. But most CSR funds are invested in activities not related to the core business models. SDGs offer a measurable framework for businesses to align their CSR activities with corporate strategy to implement sound business models that will bring about long-term and systemic change and achieving the triple bottomline.

In this era of climate innovations, corporations can also tap into the start-up ecosystem catalysing

climate action and entrepreneurship. This can be done through corporate-sponsored acceleration programmes, revolving around themes of innovations for the corporation, which provides a platform to internalise innovations in their business models. There are also acceleration programmes for start-ups supported by different stakeholders (state/Central government, philanthropies, corporations). The land accelerator exemplifies supporting entrepreneurs and profitable business models that are restoring farms and forests and livelihoods dependent on them. An initiative by the World Resources Institute, the Land Accelerator spans across Africa, South Asia and Latin America. Over the past two years, the Land Accelerator South Asia has supported 73 restoration entrepreneurs (more than 95 per cent were Indian businesses) to get connected to the right investors and strategic corporate connects, mentorship on different aspects of their businesses and most important of all – network of a larger community of restoration entrepreneurs to drive peer-to-peer learning and collaboration opportunities.

India Business & Biodiversity Initiative (IBBI) is another great example of businesses imbibing biodiversity conservation and sustainable use into their business operations. The initiative was launched by CII-ITC Centre of Excellence for Sustainable Development and initiated by the Ministry of Environment, Forests & Climate Change, government of India, and is supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). It serves as a national platform to guide and sensitize businesses to mainstream biodiversity conservation and sustainable use across their value chains and beyond towards conserving the country's biodiversity. As many as 27 companies from diverse domains ranging from cement, steel, manufacturing to consumer products are signatories to IBBI. These signatories include Indian conglomerates like Tata, ITC, Mahindra, Wipro that together account for an annual turnover of more than $400 billion!

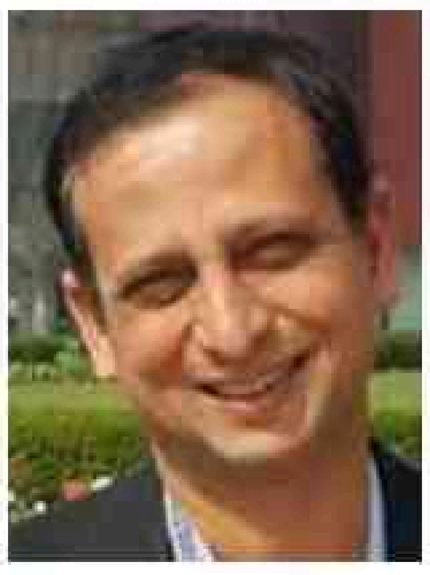
Although not formally announced, it was recently reported that Shell Overseas, a unit of oil major Royal Dutch Shell plc, is investing $1.6 billion into a joint venture with EKI Energy Services, an Indore-based green consultancy, to provide nature-based solutions to industries in India over a period of five years. The JV is being set up as a part of Shell's plan to expand in India's renewable space. This illustrates another great example of corporates funding land restoration.

There are many more models by commercially viable businesses to conserve land-based ecosystems – be it large corporations like Nestlé that has announced a financial commitment of 3.2 billion Swiss francs to halve its emissions by 2030 and achieve net zero emissions by 2050. It expects to source over 14 million tonnes of its ingredients through regenerative agriculture by 2030. reNature, a start-up from the Netherlands, is developing commercial regenerative farming and agro-forestry projects to help farmers and corporates transition to regenerative agriculture.

The role of private sector will prove to be pivotal for India to advance progress on achievement of SDG-15 by 2030. It will be crucial for businesses to integrate responsible and sustainable solutions in their core operations to mitigate future climate risks, while maximising positive impacts on people and planet. There is a need to shift to stakeholder capitalism from shareholder primacy to bring about long-lasting change. We need to act now! ◆

Making agriculture sustainable

Climate risks need to be addressed with the utmost urgency, preferably in this decade, before it is too late



HEMENDRA MATHUR

All of us are vulnerable to climate risks. But if you ask me one category which is most vulnerable to it – it has to be the small-holder farmer in India with land holdings of less than 2 hectares and an annual income of less than $1,500. India continues to be one of the most water-stressed countries in the world. With deteriorating soil health and increasing volatility in weather patterns, both the environmental sustainability and income sustainability of Indian farmers is being called into question.

Solving this problem (climate risk) needs a holistic, collaborative approach through policy intervention and catalytic capital. Above all, innovations are at the fulcrum to bring about change.

Innovations for climate action in Indian agriculture: There are multiple start-ups and innovators trying to solve the problem of climate risk, adoption, and resilience. There are three types of innovations from a climate-lens perspective. The first is Climate risk mitigation. Climate data and risk modelling is the key. Risk modelling is changing for good, with improving hardware, the processing capacity of computers, access to cloud storage, and more importantly, the application of deep learning models. Start-ups in this category provide accurate and timely hyperlocal data and advisories directly to farmers or value chain members. Financial institutions lending to agriculture are early adopters of these solutions.

Start-ups like SatSure, CropIn, RMSI, Satyukt have developed (top-down) models for large tracts of farmland using satellite imagery and weather stations, whereas start-ups such as Soilsense, Bharat Agri, Frugal Labs, Plantix, Cultyvate, Yuktix and Fasal have gone granular (bottom-up) with the use of sensors, IoT, and smartphones for delivering real-time and accurate farm advice on the use of water, fertilisers, crop health and preventive measures. The convergence of these two types of data models and approaches will further drive the accuracy and timeliness of climate risk predictions for the benefit of farmers and other value chain players.

The development of such models can be accelerated with participation from public institutions such as Indian Space Research Organisation (ISRO), Indian Council of Agricultural Research (ICAR), India Meteorological Department (IMD) and agricultural universities who have access to data and resources. Making data available to start-ups for training, standardisation and testing their models – through public private partnerships – is needed for the adoption of risk mitigation models.

The second innovation is Climate adoption. Included here are solutions for improving water use efficiency and soil conservation. Water use efficiency optimises use of water for irrigation. Soil health solutions fix NPK ratio, deficiency of micronutrients such as zinc, copper, manganese in the soil and the continuous decline in humus stock and soil fertility. The conservation of water and soil can further be complemented by optimising pesticide usage – about 60,000 tonnes per annum in India – using data-driven models, drone application and replacement with bio-pesticides along with the use of integrated pest management, wherever possible. Some examples in this category are: Krishitantra (which provides a soil test for macro and micronutrients, EC, pH, organic carbon with results within 30 minutes); Borecharger (a low-cost model for borewell recharge to improve yield from deeper aquifers); Distinct Horizon (a deep placement urea machine that can reduce urea consumption by 40 per cent as well as GHG emissions with 10 to 60 per cent increase in yield); aQysta (which developed the 'Barsha pump' to use energy from rivers and canals to pump water with zero fuel and electricity use); EF Polymer (a polymer from bio-waste extracts for higher water retention in the root zone of crops); AI Genix (which uses AI for pest management).

The third innovation is Climate resilience. The majority of Agritech innovations that we have seen in India in the recent past have, in some way or other, contributed to making supply chains resilient and reducing the carbon footprint. For example, farm-to-fork start-ups (such as Way-Cool, Ninjacart, Agrowave, Farmlink, DeHaat) have brought energy efficiency through demand aggregation, scientific storage, temperature-controlled transportation, and route optimisation in the supply chain. Some of them also work with farmers to adopt sustainable agriculture practices. Post-harvest interventions through dehydration, cold chain, logistics solutions and farm level processing – such as S4S Technologies, Our Food, Promethean, Inficold, Ecozen, Milklane, Tan90, and RuKart – have also significantly reduced the use of energy and fossil fuels.

Though innovations play a key role in lessening climate risks, we need a policy push to drive the climate agenda. These include:

Climate Risk Index for the country: An important area of policy intervention should be to create awareness and sensitivity of climate risk

The author is Venture Partner, Bharat Innovation Fund

SANJAY BORADE

Climate Risk Index can be used for calibrating the farmer support programmes from the government, PSL lending rate, loan waiver management, and insurance premiums

among farming community to improve adoption. This is possible through the continuous education of farmers about the subject. One way to achieve this is to start building a Climate Risk Index (CRI) of all 600,000-plus villages in India – or at least start with CRI for all 15 agro-climatic zones.

CRI can be used for calibrating the farmer support programmes from the government, PSL lending rate, loan waiver management, and insurance premiums. Fortunately, there is enough technology and data analytics (specifically from weather stations and satellite imagery) available to capture, analyse and build a robust CRI.

Crop rotation policy: There is a need to create demand for resource efficient crops like millet and shift the area under cultivation for water-guzzling crops like sugarcane and paddy to other crops. This will not happen without creating economic incentives for farmers, which could be in the form of Minimum Support Price (MSP), market linkage support, and preferential lending rates.

Driving investments for climate resilience: There is a huge opportunity waiting for investors in business models solving climate risks and adoption in the agriculture sector. Climate capital is not necessarily different from other forms of capital since it will lead to resource optimisation and productivity improvement, and in the process, generate value and returns for investors.

Incentives for farmers: The majority of farmers would need financial incentives for adopting climate resilient practices, be they smart irrigation, soil and water conservation, building water ponds, sowing drought-tolerant seeds, or using integrated pest/nutrient management techniques. These incentives are required to bring about a behavioural shift in the way a farmer thinks about using natural resources such as water, soil and nutrients. These could be in the form of crop loans, insurance, and post-harvest loans.

Policymakers, industry, investors and start-ups have to work in tandem to build long-term solutions to make Indian agriculture climate-resilient and sustainable.

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Planting for the planet

Climate change is real and is affecting our planet at an unprecedented pace

BLUE DART

Woods are lovely, dark and deep

As India's most trusted express logistics provider, Blue Dart is committed to making its business sustainable. While the world does benefit from every individual contributing to the holistic healing of the planet from a social development and environmental perspective, real change occurs when major conglomerates and organisations start implementing these best practices.

As part of the Deutsche Post DHL Group, Blue Dart stands strong in its belief that, through its size, nationwide reach as well as its importance in facilitating trade, it has a special responsibility not only for its employees and customers, but also towards society and the environment. This sense of responsibility has an influence on the way the express logistics provider conducts business and is the foundation of its corporate culture.

Global temperatures continue to rise; rapid forest fires and extreme weather conditions are becoming more prevalent. Climate change is real and is affecting our planet at an unprecedented pace. While it all begins by taking one step at a time and the sooner the better; the most powerful way to fight climate change is by, 'planting trees for the planet'.

We all know that forests and trees have tremendous potential to create multiple environmental, social and economic benefits with their ability to slow down environmental degradation and global warming. Trees absorb carbon dioxide from the atmosphere, act as a natural filter by absorbing pollutants and provide a rich habitat for a diverse range of animals and plants in the ecosystem.

Blue Dart is committed to its surroundings. Following the credo of 'connecting people, improving lives', Blue Dart's focus lies on the three main pillars – GoTeach (championing education), GoGreen (protecting the environment) and GoHelp (disaster management response), successfully impacting communities and the environment.

Women carrying saplings to plantation

Billion Tree campaign Under the GoGreen programme, Blue Dart has partnered with Grow-Trees.com, the official planting partner for United Nations Environment Program's (UNEP) Billion Tree campaign and WWF for its plantation projects. Since 2017, Blue Dart has been planting 111,000 trees every year. To date, it has planted 555,000 trees in various geographies of the country, which will offset 11.1 million kg of CO_2 per year, on maturity. This contributes to over 10 per cent of the DPDHL group's global target of planting 1 million trees a year. These trees are planted only on public or community land to protect the natural habitat and also benefit the local communities surrounding the region. Neither Blue Dart nor Grow-Trees own the trees, as they belong to the communities in the area.

Blue Dart has planted a total of 340,830 trees in the Kanha-Pench Wildlife corridor for the Tigers. The region is marked as the Pench Tiger Reserve and is home to a significant population of tigers in India and is also ranked among the world's most important tiger habitats. Apart from this, to mark the occasion of World Elephant Day, on 12 August 2021 Blue Dart employees volunteered to plant trees along with the help of local villagers. Blue Dart planted 103,170 trees in the periphery of Dalma Wildlife Sanctuary which is known as a paradise for elephants.

Increasing the forest cover across

the country, Blue Dart has successfully planted 36,000 trees in the Kheda district of Gujarat, 25,000 trees in Koraput district of Odisha, 20,000 trees in Chittoor district of Andhra Pradesh, 20,000 trees in Sikkim, and 10,000 trees in Yavatmal, Maharashtra. Fragmentation of wildlife habitats is one of the primary reasons for the decline in the population growth of wild species. The trees planted in these regions secure the habitat of wildlife and helps to resolve man-animal conflict while bringing a balance to the eco-system. Moreover, it also provides ample forest-based resources to tribal groups living in these areas and dependent on trees for food, fuel and livelihood. The plantation is done by the villagers, especially women. This generates employment opportunities for women who can earn an income and also take care of their household chores.

Blue Dart further champions the group's 'Mission 2050 – Zero Emissions', wherein the goal is to drive the business towards zero emissions logistics by setting the standard for the future of the transport sector and doing its part to help the world community reach its goal of limiting global warming to less than two degrees Celsius. ◆

GRAM VIKAS

From degraded hills to dense forests

"This used to be a forest," said Piscu Majhi, in 2018, distraught about the loss of land, water, and life that he grew up seeing. "Our cows and goats feasted on the fig fruits. There were four springs. Now, they are all gone. No water, no animals, nothing now. Even the cattle are dying. There is just one spring now. And, it does not give much water, not even to fill the palm." Majhi was from Tentulipada, a habitation in Thuamul Rampur block of Kalahandi district in Odisha. The block has a total population of about 80,000, of which 57 per cent are adivasis and 25 per cent are dalits.

Despite an average annual rainfall of over 2,000 mm, habitations here face water shortage. The Indravati dam project, bauxite-mining, practices like slash and burn cultivation, and open grazing have caused large-scale reduction of forest cover. This damaged the spring catchments, reduced groundwater availability and quality and eroded the topsoil. Soil fertility and land productivity declined, reducing the per acre yield.

In 2018, Gram Vikas started the community-owned social and agroforestry work to enable forest-dependent communities to create, own, and manage forest resources and realise the dual benefits of natural resources-based livelihoods and water source sustainability. Since then, more than 150,000 fuel, fodder and fruit-bearing trees have been planted, and soil and water conservation works taken up in 510 acres of degraded land. It has led to increased productivity of 1,850 acres of land, benefitting 2,320 people from six gram panchayats (GPs) in the block.

IMAGE CREDIT: ASHUTOSH BHAT/GRAM VIKAS

Maa Manikeshwari SHG members from Pengdhusi village involved in nursery stablishment

Strengthened community institutions manage the development activities in the 10 villages. Village development committees (VDCs), women's self-help groups (SHGs) and farmers are trained on participatory management of the natural resources. A cadre of 22 village youth, trained as service providers and employed by VDCs, build community capacities in land development and undertake spring sheds monitoring.

Improving soil moisture Tree plantations, more than 4,926 staggered contour trenches and 28 gully plugs across 33 acres and 13,750 cu ft of field bunds have reduced rainwater runoffs and soil erosion, improved soil moisture conservation, groundwater recharge, and cultivation in the valleys. "Plantation and soil conservation work in the catchment area give us water to grow vegetables in winter," says Shantilata, secretary, Tukuguda VDC. Post-intervention, households have taken up a second paddy crop in the summer across 22 acres of land.

Horticulture plantations of mango and cashew have improved cash incomes, while intercropping of pulses and cereals has enhanced food security. Overall, the intervention has generated an additional income of ₹11.8 lakh for 405 households, helping them meet healthcare, education, household needs, and buy seeds.

Raising saplings at village level has invoked a greater sense of community ownership on the afforestation initiative. SHGs can generate income, especially during the seasons with limited wage labour opportunities. Across five habitations, SHGs have earned a profit of ₹1.9 lakh from the nursery activities.

Micro-automatic weather stations monitor local conditions to correlate the water run-off, infiltration patterns and determine the outcomes of land development activities on the recharge of local aquifers. Using Google Earth Pro software, plots identified for plantations, nurseries, and recharge areas of springs are geo-tagged. Young people trained as Para-Geo Hydrologists use a mobile application to measure spring discharge and inventorise the water sources. So far, 554 springs have been mapped onto a GIS enabled online portal – the Spring Water Atlas. This strengthens various aspects of spring management to address water scarcity.

The communities have contributed a portion of each unit of wage labour. Over three years, 13.5 per cent of the project expenditure, equalling ₹5.43 lakh, came from the community.

Funded primarily by InterGlobe Foundation, the intervention has harnessed multi-sectoral collaborations to drive scale and impact. Non-profit partners, Advanced Centre for Water Resources Development & Management and Watershed Organisation Trust have built capacities in groundwater and community-centric watershed management, and spring sheds. The Spring Water Atlas is a collaborative effort with the ministry of tribal affairs of the government of India and UNDP India. Private sector partner, Skymet Weather Services has provided the mAWS systems and training. Convergence with gram panchayats has helped leverage MGNREGS funds, helping families earn even during the pandemic.

Less than 25 per cent of the villages in Thuamul Rampur is connected to the mobile network. None of the 10 intervention villages have mobile or internet connectivity. The remote geographic location and digital unconnectedness hamper most efforts to realise greater value for the farm products. Value addition through processing or collective sales of products is unviable. Large-scale migration of young men for work with better wages in other parts of India is another key challenge.

Gram Vikas has developed the Water Secure Gram Panchayat Programme (WSGP) to enable community-led water resource management and resilient, sustainable and gender equitable institutions. Forestry is a critical component of the WSGP work. The programmatic pillars of WSGP are water equity and resilience, water sustainability, water security and prosperity from water. The organisation plans to scale WSGP to 1,000-gram panchayats of Odisha and Jharkhand by the year 2030.

Piscu Majhi and his family have a different story to tell now. "My land is close to a rejuvenated stream. Now, I get water throughout the year for irrigation. There is also more grass growing for the cattle to graze."

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SAMUNNATI

Catalytic investing and green solutions

Impact-driven investing puts higher emphasis on sustainability (environmental & financial) and a multitude of cascading social impacts, such as poverty alleviation, strengthening livelihoods, nutritional security, gender inclusiveness and community empowerment. Without synergistic partnerships, it will be impossible to achieve desirable scale and last-mile reach particularly, to the highly vulnerable, the needy, yet the most difficult ones to get to. These are the core principles embedded in Samunnati's DNA, which strives through its 1,500-strong network of farmer collectives, reaching nearly 6 million farmers to make the markets work for smallholders as in the example presented here.

Located in the scenic hilly Paderu region of Eastern Ghats (Visakhapatnam district in Andhra Pradesh) is the D. Gonduru Girjana Rythu Seva Mariyu Vuthpathidarula Mutually Aided Co-operative Society (MACS) Ltd. Established in July 2017, with the help of Kovel Foundation and financial support by NABARD (National Bank for Agriculture and Rural Development) under its producers' organisation development fund, the FPO has about 400 farmers from 30 surrounding villages as its members, with women constituting nearly 65 per cent of the total membership. Here is an investment opportunity that does not only make commercial sense, but also has a huge scope to foster sustainable, gender-inclusive and long-lasting social impacts at grassroots level.

These farmers, located in one of the most underdeveloped areas, face several challenges, including land alienation, lack of access to institutional credit, adequate infrastructure (proper roads, warehouses), marketing opportunities, efficient and competitive price discovery and an effective extension system etc. Over half of the household income of the co-operative society's members comes from agriculture, as they struggle perennially in the unending cycle of low investment-low-input-low output subsistence farming. Major crops cultivated are paddy, coffee and turmeric, with minor crops, such as pepper and pippalamodi (long pepper root, a raw herb) also grown along side. Although there exists some marketing arrangements with a large beverage company for coffee and a few traders from Odisha and Madhya Pradesh for procuring black pepper and turmeric, their livelihoods are precarious, with heavy dependence on hand-to-mouth subsistence farming, which is most vulnerable to climate change induced monsoon vagaries, crop loss and/or other natural calamities. All these have huge direct and indirect impacts on the surrounding mountainous forest ecosystem and the bio-diversity of flora and fauna therein.

Through Samunnati's proprietary FPO Assessment Tool, which is rigorous and data-driven, several critical issues to de-bottleneck the value chains

Samunnati brings the smallholders closer to the markets

from both agri-finance and agri-commerce perspectives (such as credit, market linkages, knowledge on responsible use of agri inputs, sustainable agricultural practices, post-harvest handling, storage, processing, etc) were identified and lack of access to institutional credit emerged as the single most limiting factor. Consequently, a short-term output loan, in the form of a 30-day revolving facility, with a limit of ₹5 lakh, for procurement of agri-produce from farmers, was extended in 2019. Encouraged by the holistic social impacts and prompt repayment, the loan facility from Samunnati was extended again with the limit doubled to ₹10 lakh in 2021.

From the sustainability perspective, the hilly region presents several unique challenges (conserving bio-diversity of flora and fauna, preventing soil erosion in the slopes and nutrients run-off, etc), while balancing the commercial benefits. Hence, to promote climate-smart agricultural practices, necessary training and capacity building for the farmers was facilitated through a local resource institution on enhancing productivity and quality (especially for coffee), judicious use of inputs and proper post-harvest handling.

Zero budget natural farming With the timely intervention by Samunnati and the tripartite MoU with Rythu Sadhikara Samstha (RySS) and Kovel Foundation, the FPO is forging ahead with implementing zero budget natural farming (ZBNF) initiative, to adopt improved agricultural practices, resulting in reduction in the cost of cultivation by as much as 95 per cent.

With improved market access, farmers are encouraged to adopt inter-cropping in the coffee plantations, growing turmeric and black pepper, which yield a wide variety of environmental benefits (such as preventing soil erosion, reducing run-off during rainfall, loss of nutrients through leaching, etc), besides being an effective income-risk mitigation tool. These multifaceted and holistic interventions by Samunnati and other valuable partners are expected to bring at least 15 per cent incremental revenues to the farmers.

As coffee plants are grown usually under the shade of native tree species (Indian milled-leaf tree, Java plum, Dalbergia Latifolia, etc), natural forest cover is maintained and GHG emissions are absorbed/sequestered. Further, potential for new non-agri-related business opportunities, like eco-tourism, wildlife conservation, for the farmers is enormous. Thus, besides catalysing commercial success, Samunnati's interventions ensure that the tribal area farmers are also duly recognised and rewarded for their immense contributions.

Through Samunnati's agri-commerce team, the FPO's market linkage with several institutional buyers, processors, and other value chain actors is being enhanced steadily. Fuelled by Samunnati's timely funding and knowledge support from another resource institution, the FPO is diversifying its customer base (buyers), with a growing number of institutional buyers, bypassing the traders, thereby improving the farmers' margins.

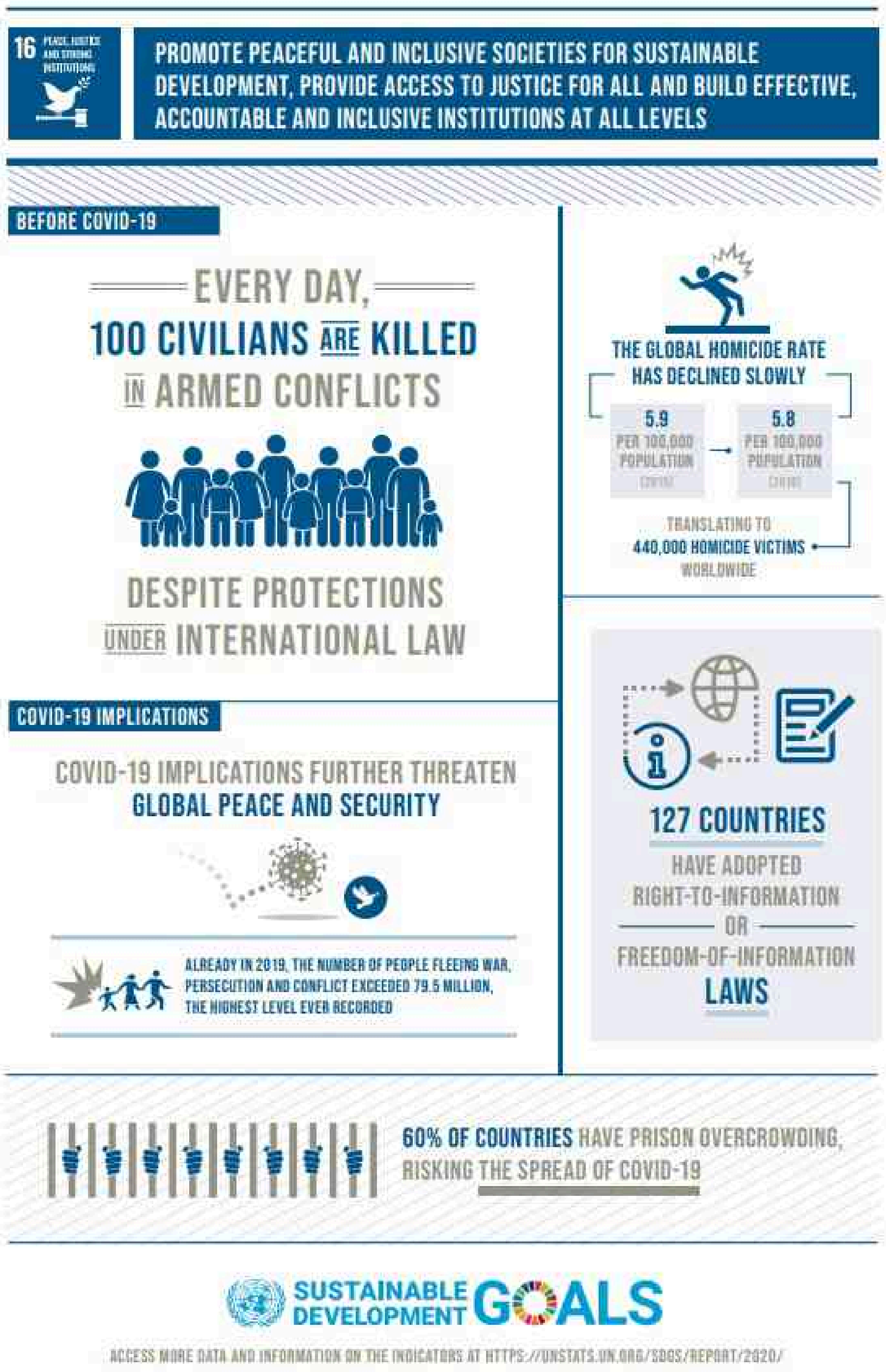
As nearly two-thirds of the members of the FPO are women, empowering them is the surest and proven means to foster long-term, holistic socio-economic benefits. With increased incomes and enhanced knowledge, the households can now afford nutritious foods and the entire community is set to benefit ultimately.

Samunnati ensures that no stones remain unturned in mainstreaming climate-smart agriculture (CSA) focussed initiatives. Recently, with Symbiotics, a prominent impact investment fund, Samunnati introduced the first 100 per cent Agricultural Green Bond in India, whereby $4.6 million is allocated towards funding projects under the agriculture, forestry, and land use category. This green bond enables Samunnati design customised offerings to entities interested in adopting climate smart and green solutions and strengthening climate resilience across agri-sector, including that of small and marginal farmers in India. ◆

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

PEACE, JUSTICE AND STRONG INSTITUTIONS
SNAPSHOT

Goal: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels



16 PEACE, JUSTICE AND STRONG INSTITUTIONS

PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

BEFORE COVID-19

EVERY DAY, 100 CIVILIANS ARE KILLED IN ARMED CONFLICTS DESPITE PROTECTIONS UNDER INTERNATIONAL LAW

THE GLOBAL HOMICIDE RATE HAS DECLINED SLOWLY

5.9 PER 100,000 POPULATION (2015) → 5.8 PER 100,000 POPULATION (2018)

TRANSLATING TO 440,000 HOMICIDE VICTIMS WORLDWIDE

COVID-19 IMPLICATIONS

COVID-19 IMPLICATIONS FURTHER THREATEN GLOBAL PEACE AND SECURITY

ALREADY IN 2019, THE NUMBER OF PEOPLE FLEEING WAR, PERSECUTION AND CONFLICT EXCEEDED 79.5 MILLION, THE HIGHEST LEVEL EVER RECORDED

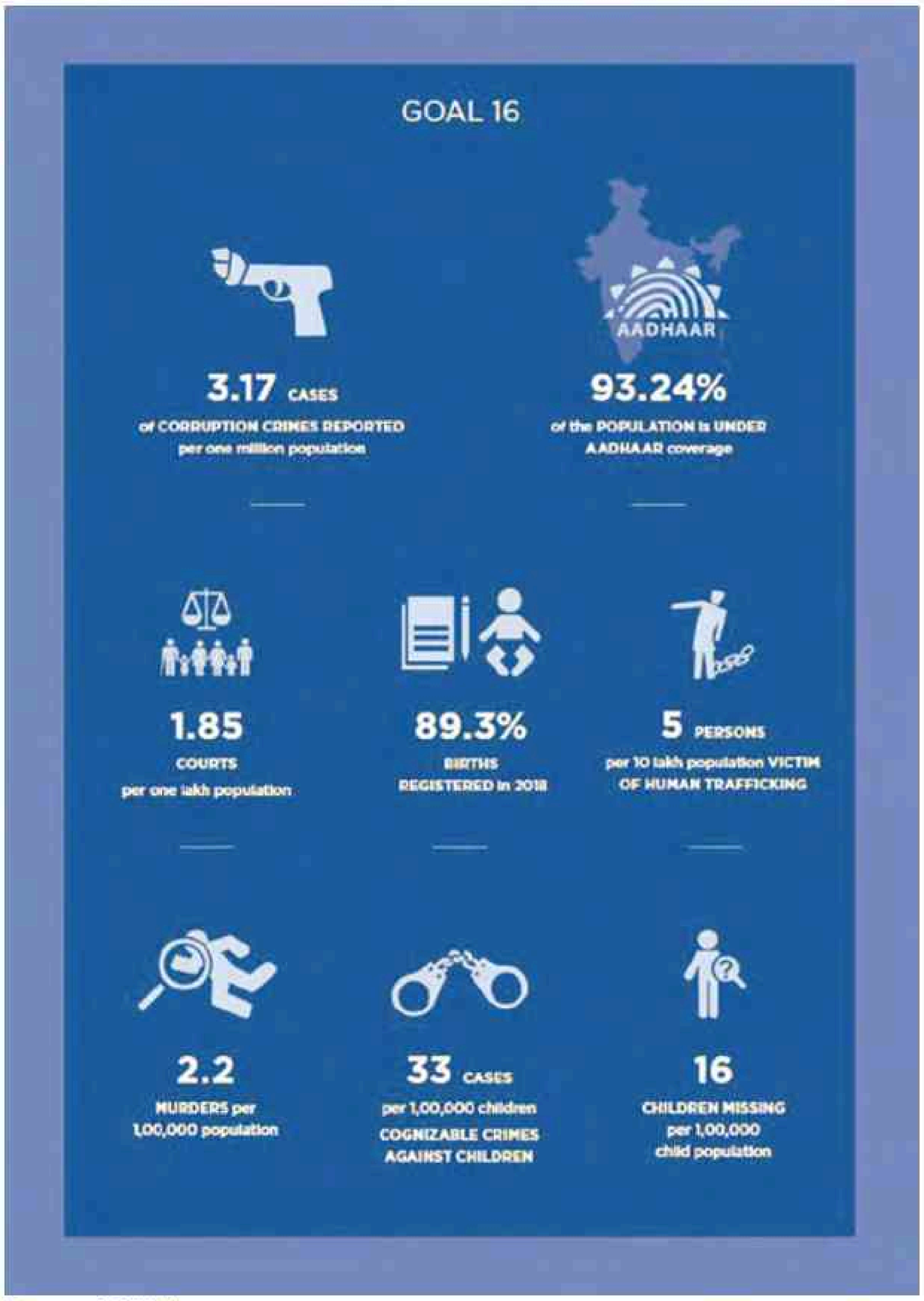
127 COUNTRIES HAVE ADOPTED RIGHT-TO-INFORMATION OR FREEDOM-OF-INFORMATION LAWS

60% OF COUNTRIES HAVE PRISON OVERCROWDING, RISKING THE SPREAD OF COVID-19

SUSTAINABLE DEVELOPMENT GOALS

ACCESS MORE DATA AND INFORMATION ON THE INDICATORS AT HTTPS://UNSTATS.UN.ORG/SDGS/REPORT/2020/

Source: United Nations



GOAL 16

3.17 CASES of CORRUPTION CRIMES REPORTED per one million population

93.24% of the POPULATION is UNDER AADHAAR coverage

1.85 COURTS per one lakh population

89.3% BIRTHS REGISTERED in 2018

5 PERSONS per 10 lakh population VICTIM OF HUMAN TRAFFICKING

2.2 MURDERS per 1,00,000 population

33 CASES per 1,00,000 children COGNIZABLE CRIMES AGAINST CHILDREN

16 CHILDREN MISSING per 1,00,000 child population

Source: NITI Aayog

PEACE, JUSTICE AND STRONG INSTITUTIONS

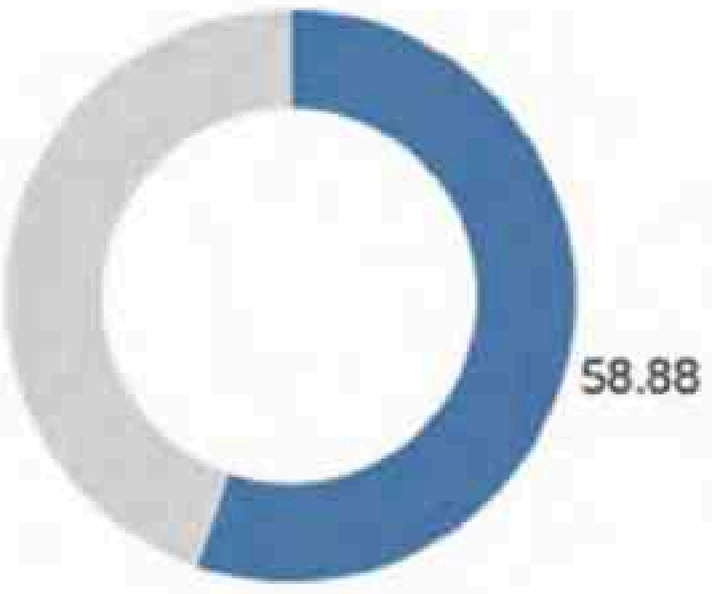
SNAPSHOT

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Country Rank

119/165

Score



UN Dashboard Status

Major challenges ●

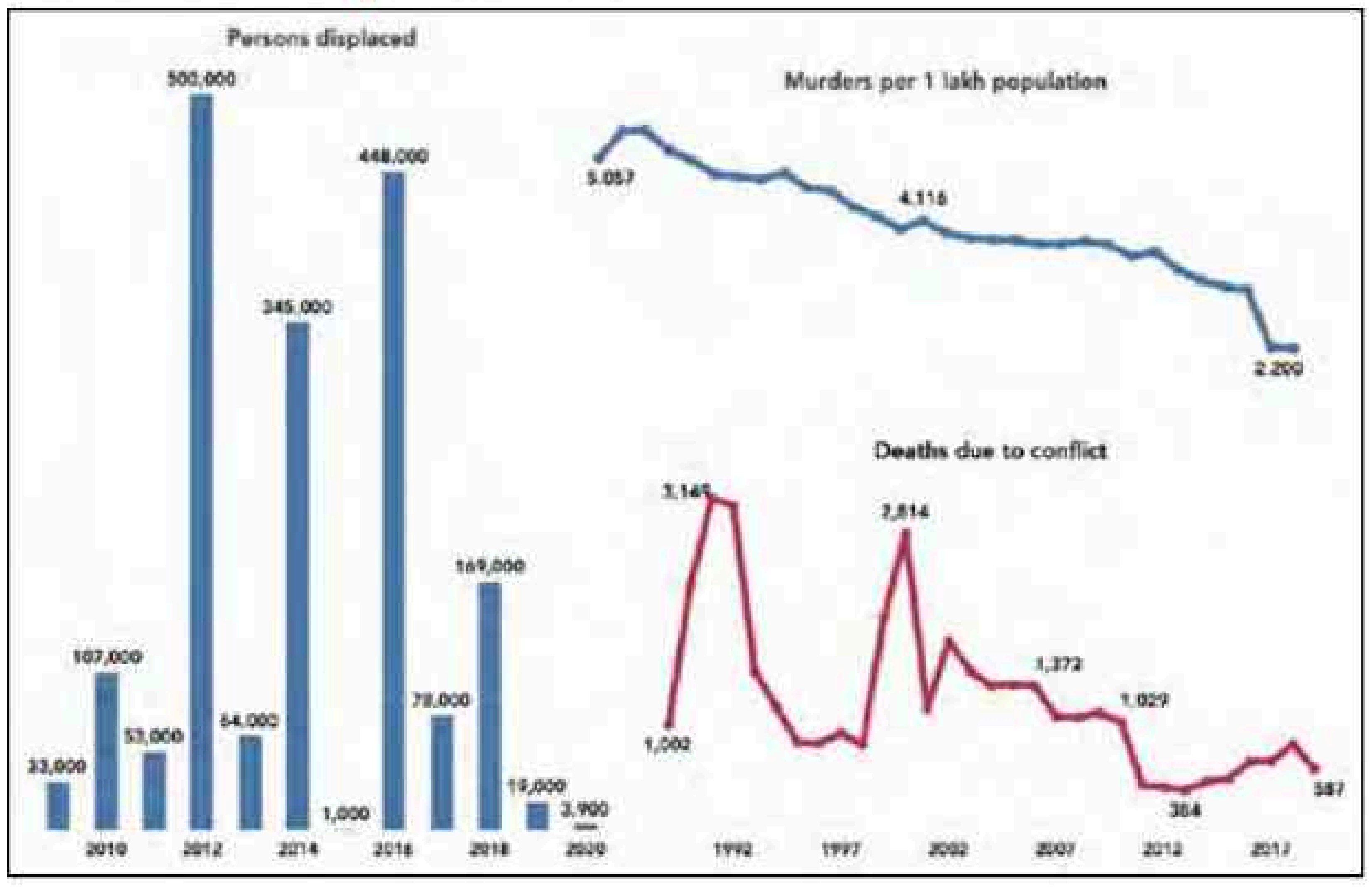
Trend

Stagnating →

Owing to significant challenges and stagnating growth seen over recent years, India ranked 119th in the world for SDG-16, with a score of 58.88. Some of the key targets identified for 2030 include:

- Significantly reduce all forms of violence and related death rates everywhere.
- End abuse, exploitation, trafficking, and all forms of violence and torture of children.
- Substantially reduce corruption and bribery in all their forms.
- Develop effective, accountable, and transparent institutions at all levels.
- Ensure responsive, inclusive, participatory, and representative decision-making at all levels.
- Provide legal identity for all, including birth registration.
- Strengthen relevant national institutions, including through international co-operation, for building capacity at all levels, to prevent violence and combat terrorism and crime.
- Promote and enforce non-discriminatory laws and policies for sustainable development.

Death and Displacement



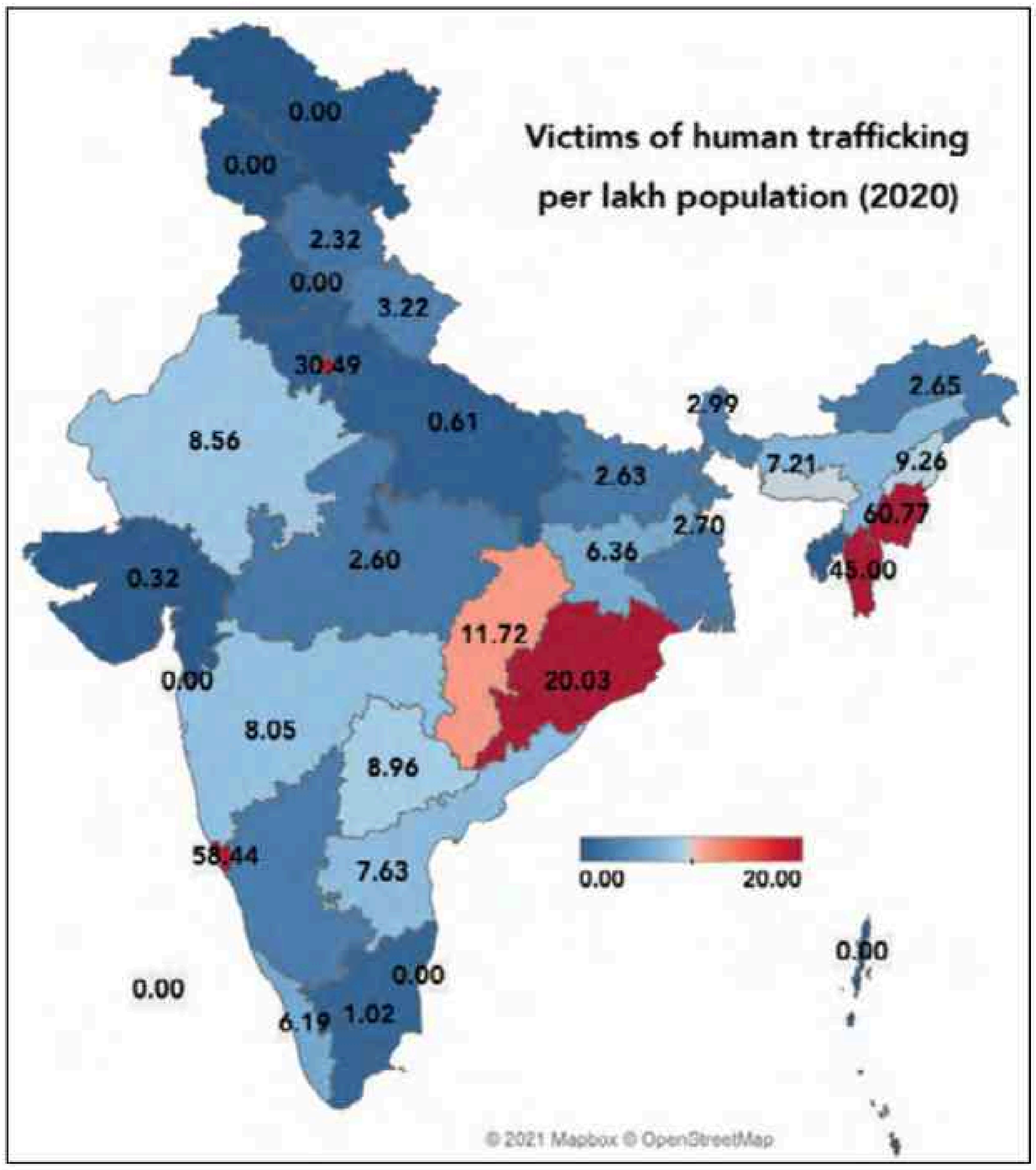
Numerous factors are considered when assessing the state of Peace and Justice a nation provides its citizens, death and displacement being one of them. Data from the National Crime Records Bureau (NCRB) shows the number of persons displaced across India over the last decade. Internal displacement in India has been very erratic since 2010, with a sharp rise in 2012, 2014, and 2016, reaching 500,000 people at its peak in 2012. Data also shows that these displacements have resulted from natural disasters and conflicts in Kashmir, among other issues.

Deaths due to conflict are another critical factor when assessing peace in a nation. Between 1990 and 2020, the number of deaths resulting from conflict increased sharply in 1992 and 2001 but has subsequently reduced consistently, reaching 587 at the end of the last decade.

A similar decreasing trend is visible in the rate of murders per 1 lakh of population, decreasing from 5,057 in 1990 to 2,200 in the late 2010s.

Another significant contributor affecting peace is human trafficking. India suffers an average of 5 cases of human trafficking per lakh population. However, the rate of trafficking has drastic geographic variation across the country, with significantly high trafficking rates in states of Manipur, Goa, Mizoram, Delhi, Odisha, and Chhattisgarh.

Alongside human trafficking, crimes against children is a significant contributing factor towards peace in a nation. This is made up of two key elements - missing children, i.e., a child who has disappeared and whose status as alive or dead cannot be confirmed as



NUMBER OF MISSING CHILDREN PER 1 LAKH POPULATION

2018	2019	2020
1,107.6	1,316.2	1,592.3

their location/status is unknown, and cognizable crimes against children. NCRB data shows that the number of children missing per 1 lakh of the Indian population has risen by 143 per cent from 2018 to 2020, reaching 1,592 children per lakh population in 2020. However, similar to human trafficking, the number of missing children varies significantly across states, with Delhi and Madhya Pradesh having the highest rate at 113.5 and 36.6 children per 1 lakh population respectively. This trend is also seen when looking at the cognizable crimes against children per 1 lakh of population, which is highest in Haryana, followed by Sikkim, Madhya Pradesh, Chattisgarh, and Assam.

Pending Judicial Cases

A well-equipped and well-functioning judicial system helps improve the quality of life and overall peace in a nation. The National Judicial Data Grid shows the number of pending cases (any cases that are yet to be presented to the court or pending trial/verdict/motion or jury selection) and the unsentenced detainees. The number of pending cases are classified based on the time they have been in the system.

PENDING CASES	
0 to 1 years	12.20 M
1 to 3 years	11.81M
3 to 5 years	6.24M
5 to 10 years	6.05M
10 to 20 years	2.71M
20 to 30 years	0.49M
>30	0.10M

By 2020, 4.35 crore pending cases exist in India of which 1.22 crore have been filed in the last year and are still pending. This number decreases consistently, with 27.1 lakh cases pending for 10-20 years, 4.9 lakh cases pending over the previous 20-30 years, and 1 lakh cases pending in the system for over 30 years. Despite the decrease year-on-year, the rate is high overall.

In the case of unsentenced detainees, the percentage share has risen between 2015 and 2019. However, this number has consistently remained over 67 per cent, reaching an all-time high of 69.4 per cent of the total prison population in 2018.

UNSENTENCED DETAINEES AS SHARE OF TOTAL PRISON POPULATION (%)

2015	2016	2017	2018	2019
67.20	67.70	68.50	69.40	69.10

Birth Registry and Citizen Identification

The third and final component of SDG-16 is Institutions. Strong institutions play an essential role in building a strong nation. Birth registration, identification, and press are a few of the many contributing factors.

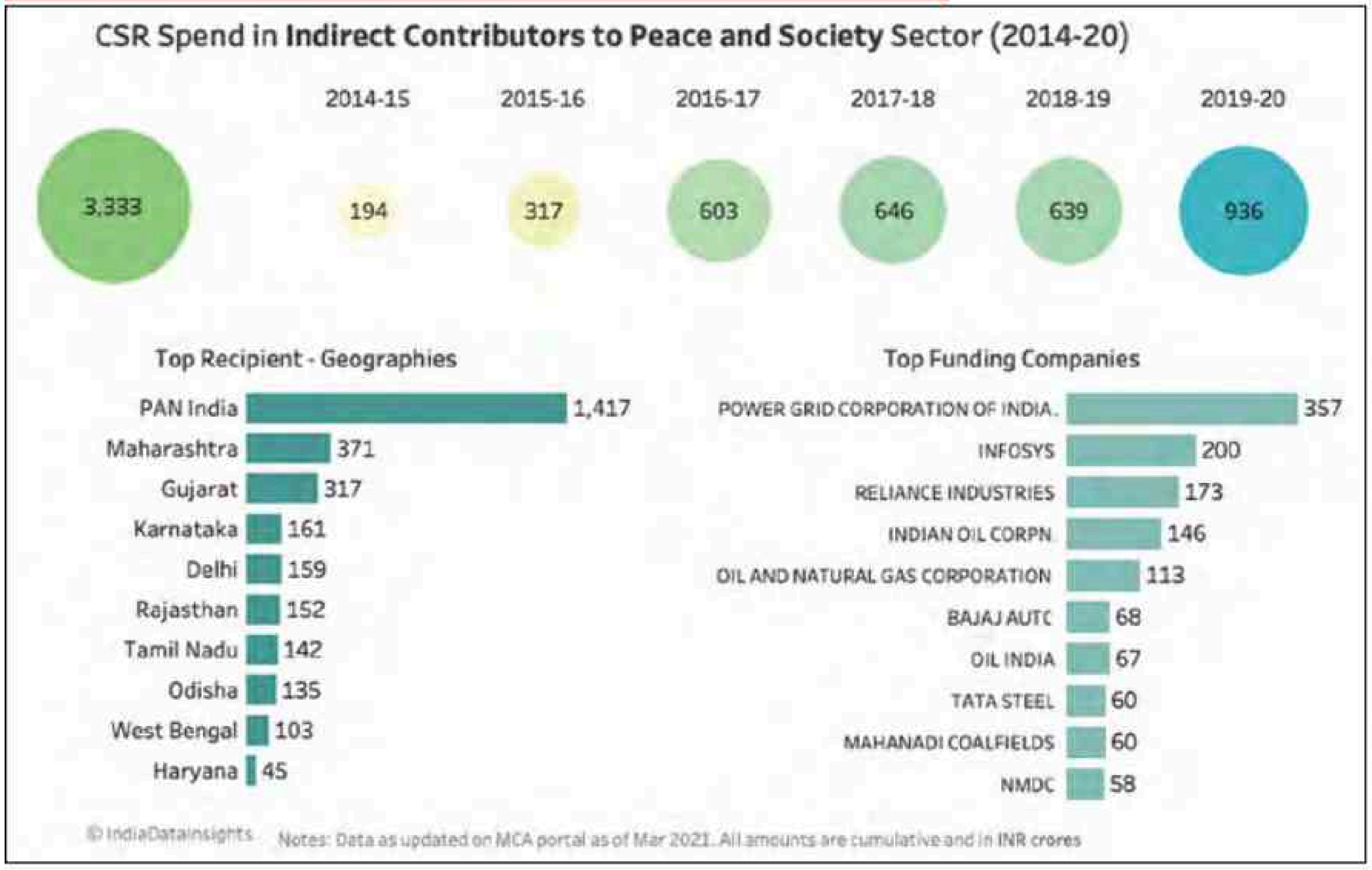
Births registered look at the percentage of births registered at institutions against the estimated total number of births in the country. From 2009, the percentage of births registered has witnessed a steady increase. This is a result of slowly increasing accessibility to better infrastructure for birthing. In addition, birth registration helps create a legal proof of identity and can help protect children against violence, abuse, and exploitation, while also enabling them to attain routine vaccinations and healthcare services.

Along with birth registration, a consistent form of identification is also crucial. With the introduction of the Unique Identification Authority of India, 99 per cent of the population in India now has unique identification in the form of an Aadhaar card. However, the percentage of population covered under Aadhaar varies significantly across the nation. The percentage of population having Aadhaar cards in Northeast India is extremely low, with less than 50 per cent of the population in Assam and Meghalaya having Aadhaar cards.

BIRTHS REGISTERED (%)	
2009	81.3
2010	82.0
2011	83.6
2012	84.4
2013	85.6
2014	88.8
2015	88.3
2016	86.0
2017	84.9
2018	89.3
2019	86.0
2020	89.3

India will have to make phenomenal efforts for strengthening its institutions while ensuring justice for its people. This milestone would require a concerted effort from all the stakeholders, especially within the government ecosystem.

CORPORATE CONTRIBUTION



Notes: Data as updated on MCA portal as of Mar 2021. All amounts are cumulative and in INR crores

SDG-16 aims to promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable, and inclusive institutions at all levels.

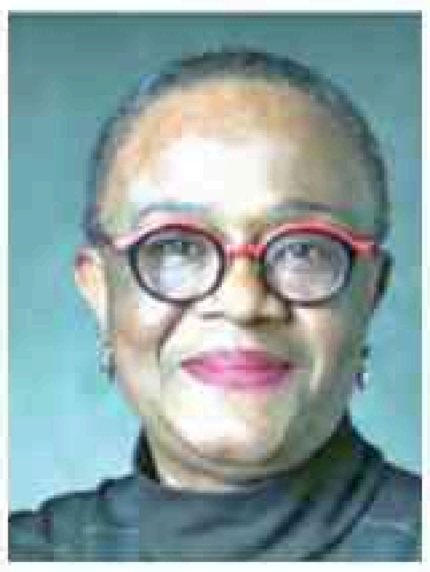
Some of the sectors (though indirect) which are receiving funds from corporates to address these areas include:

- Armed forces, Veterans, War Widows/ Dependents
- Arts and Culture
- Training to promote Sports
- Setting-up homes and hostels for women
- Setting-up Orphanages

About ₹3,333 crores have been spent in projects related to the above sectors. 6 of the top 10 donor companies are PSUs with Powergrid Corporation contributing nearly 10 per cent of the total CSR investment in these areas. Other major contributors include Infosys, Reliance Industries, Indian Oil, and ONGC. Maharashtra, Gujarat, and Karnataka are the top 3 states that received CSR funds for these sectors.

Transformational governance

Small and medium enterprises are key drivers of economic growth and job creation



OLAJOBI MAKINWA

Peace, justice and strong institutions – bound together as UNSDG-16 – are essential to profitable and sustainable environments for business and investment. When those factors are in place, businesses and investors can spur economic innovation and development, generate jobs and incomes, diminish poverty, and expand opportunity.

Businesses can and must play a catalytic role in promoting peace, justice and strong institutions at local and global levels. By demonstrating ethical leadership and values-based strategies, policies and operations, businesses can help the countries where they operate meet their ambitions related to anti-corruption, human rights, inclusive decision-making and community engagement. It represents an opportunity for responsible businesses to be a key contributor to achieving the transformational governance the 21st century requires.

Expanding the 'G' in ESG: The UNGC has developed an SDG-16 Business Framework. It is a tool for businesses focussed on encouraging 'transformational corporate governance' – a principles-based philosophy that invites businesses to expand their view of the 'G' in ESG. It calls for businesses to provide greater accountability, integrity, and transparency as a driver to responsible business conduct, enhanced ESG performance and strengthened public institutions, laws and systems – to create more peaceful, just and inclusive societies.

Private sector support for SDG-16 centres first on accepting a primary responsibility for social improvement, given the private sector's important economic role, as also its vast resources and inherent engagement with and dependence on communities, large and small. This acceptance must overcome the paradox of self-interest, which, in turn, should be measured in decades, not in weeks and months.

One of the key benefits when businesses prioritise SDG-16 is that it will encourage growth. As businesses work with civil society and governments to promote greater transparency and accountability, it fosters greater stability, contributing to creating an environment that is more conducive to economic growth. It becomes an upward cycle if the commitment to this SDG is internalised and reflected in the business model as a new way of working.

The role of business: The discussion around promoting peaceful and inclusive societies tends to get philosophical and sometimes abstract. It does not have to stay at this level. There are four areas that businesses can focus within their organisations to accelerate progress towards SDG-16.

The first one is collaborating with government: There is a role for businesses to support governments in strengthening the capacity and effectiveness of national institutions. It is crucial for this private-public collaboration to be transparent and to include civil society. In addition, there is a role for businesses to support institutional capacity building without taking on the role of government. This can take the form of private-public engagement to support the government in obtaining, improving, and retaining skills, knowledge, tools and other resources needed for the institutions to fulfil their responsibilities and provide service and value to society.

The second is embedding transparency and inclusivity: Transparency and diversity are fundamental to address key aspects of SDG-16, such as accountable governance, anti-corruption, public access to information, respect for the rule of law and inclusive decision-making. Businesses can become role models in these dimensions by implementing internal control systems, increasing disclosure efforts and promoting internal diversity policies.

The third fosters inclusive institutions: Businesses can contribute to fostering inclusive institutions by leading by example. They can drive fundamental cultural change through providing access to quality education and skills development. While acknowledging that this is not an easy task, executives should encourage businesses to ensure that values, strategies, operations and relationships across their operations and value chains promote diversity and inclusion. Developing a company's set of diversity goals and targets are seen as a starting point, which can move on to evaluation and disclosure. This is a great way to build and communicate the organisation's commitment internally and externally.

Businesses must enable diversity at the very start of the process at their upcoming recruitment event, talent and promotion pipeline. For example, vulnerable groups usually have little access to education, making them less qualified for senior positions and blocks them from participating in decision-making processes. In this situation,

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The author is chief, inter-governmental relations, UN Global Compact

business action can focus on internal skills development systems and external advocacy that helps to bridge the educational gap and long-term inclusiveness.

And the last is scaling up impact: Businesses are encouraged to scale up their contribution to SDG-16 by collaborating across their supply chains to promote principles of transparency, compliance and accountability. Executives should see opportunities for companies to scale up impact vertically, along their supply chains, horizontally, through collective business action within and across sectors. These strategies have the potential to create more impact at scale.

Collaboration within companies through industry associations and business networks is highly recommended to raise standards and encourage lagging business. Moreover, development experts have highlighted the critical role of small and medium enterprises, as they are key drivers of economic growth and job creation in developing countries and are worse off in terms of progress on SDG-16. Considering that they regularly interact with country institutions, companies can also form coalitions to demand better and stronger institutions and provide feedback on weaknesses that governments need to address. ◆

Odisha shows the way

Institutional and Implementation Innovations

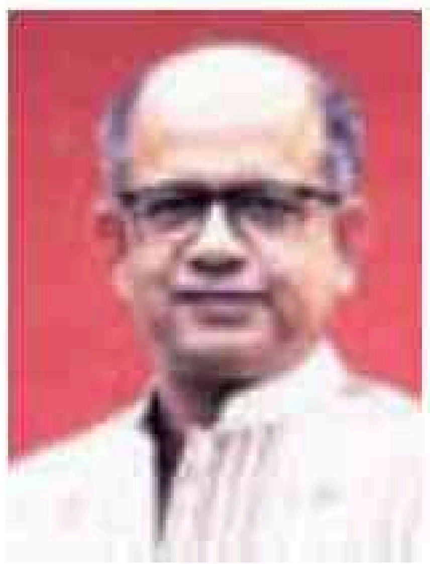
The NITI Aayog released its third national SDG Index on 3 June, which detailed the implementation of UNSDGs in the country, states and Union Territories and marked them between 0 and 100 points. In a significant marker of improvement, no state fared in the 'aspirant' category, the lowest in the index. All states managed to score above 50 points in SDG implementation, with 13 states faring in the 'performer' category and 15 in the 'front runner' category (the second-highest position). The overall performance of the country towards SDG implementation saw some improvement, as it stepped into the 'front runner' category with a score of 66 points, though on the ordinal scale, it dropped two ranks. However, it is disconcerting to note the better performance and ranking of our neighbours compared to us within such a short period of time. The country did well in implementation of SDGs 6, 7, 11 and 12, but could do better in many others.

Odisha's good show While the national ranking dropped, Odisha saw a three-point improvement in its overall score and settled at 61 points, making the state a 'front runner' in SDG implementation. The state has topped in the implementation of two SDGs, 12 and 14 – 'climate action' and 'life below water'.

In the climate action SDG, which aims to integrate climate change and disaster risk measures with sustainable natural resource management into national development strategies, the state scored 70 points. Its famed disaster preparedness has already been recognised multiple times by different UN agencies in the past. The state managed to save 120 tonnes of CO_2 per 1,000 population, by using LED bulbs. As for SDG-14, which aims to conserve through the sustainable use of oceans, seas and marine resources, and hence prevent marine pollution and illegal fishing practices, Odisha managed to score 82 points on the index. The state showed improved shore water quality and saw a 3.2 per cent increase in areas under mangroves. The report also stated that 41.7 per cent of the available potential area under aquaculture was developed, which is only second to West Bengal.

The state's rankings in these two goals come across as a highlight because, as per the Asia and Pacific SDG Progress Report 2021 released by the UN Economic and Social Commission for Asia & the Pacific (UNESCAP), the APAC region showed a decline/regression in its commitment to SDGs 13 and 14.

Odisha's improvement in these two goals and in the overall score can be attributed to several factors, with one of the most important being prioritising budgetary allocation towards these sectors.



Dr AMAR PATNAIK

The author is a Member of Parliament, Rajya Sabha

In the budget announcement for FY2021, the State had introduced a 'Climate Budget', a first-ever. While highlighting the impact of climate change on various departments, including forests, fisheries, disaster management and agriculture, the budget presented a way of tracking public expenditure for a clean climate. Odisha has also been working in the area of climate change since 2010, with the State Action Plan on Climate Change (SAPCC). The plan was revised for the period of 2018-23 and is under implementation. Creditably, the latest revision to achieve 2030 targets of the SDGs was done recently.

In fact, in FY2022, the Odisha government submitted a separate 'SDG budget', once again a first in the country, indicating a significant development in commitment towards achieving and implementing the said goals. The SDG budget provides cross-department linkages and the state's commitment to work for the implementation of SDG 4, SDG 10, and SDG 2. These goals will be provided 16.8, 15.4, and 10.2 per cent of the SDGs' budget, respectively.

Odisha also managed to score 83 points on the SDG 15 index, which refers to protecting, restoring, and promoting sustainable use of terrestrial ecosystems. The increased budgetary allocation towards flood management and irrigation (₹3,000 crore in FY2021) has also led to a robust disaster prevention, unitisations, and response mechanisms.

Hard work ahead The NITI Aayog Report has thus presented a myriad of concerns to policymakers. Even with a significant improvement in many goals, India continues to be in the 'Aspirant' category for the implementation of the SDGs on gender equality and zero hunger. Many others, such as no poverty, quality education, decent work and economic growth, industry and infrastructure, and climate action, need a lot more work so as to be pulled up into the 'front runner' category from the present 'performer' category. Partnership is the key to achieve this. The current level of collaboration with states, Union Territories (UTs), civil society organisations (CSOs) and businesses, should be further enhanced, overlooking any differences in political ideologies and differences with the states.

As already recognised, Odisha, as well as all other states, need to aggressively implement SDG localisation efforts at the district, panchayat and village level so that the actual implementation feedback from the field will be available, besides enabling true internationalisation of the SDG concept and goals by the community. Only community buy-in can make SDG truly achievable and deliverable. ◆

Let there be peace!

Peaceful and inclusive societies will take sustainable development to the next level

JSW

Connecting farmers to tech platforms

At the Foundation, stakeholder participation is guaranteed at all levels

Any organisation that understands the development landscape of India knows and reinforces the importance of stakeholder-inclusive discussions on projects and programmes. It is critical to recognise that strong governance and advocacy on the ground are intrinsically tied to the impact one wishes to achieve.

JSW Foundation intends to touch upon goals '16.6: develop effective, accountable and transparent institutions at all levels' through its institutional setups and '16.7: ensure responsive, inclusive, participatory and representative decision-making at all levels' by its governance on the ground.

At the Foundation, stakeholder participation is guaranteed at all levels of all programme design and execution to ensure that trade-offs are made with the greatest potential outcomes. Spaces for candid conversations are carved out with project users – women, the gram panchayat, zilla parishad – predominantly, to chart the needs of the community using dialogue simulation tools. Once the need is substantiated and taken up, self-governance committees are put into action, dedicated to ensuring end-to-end implementation of the initiatives, while advocating for subsequent self-sufficiency.

Jaigad, a small seaside village of Sakhar Mohalla, has transformed its waste management completely. The 150 families over there were used to throwing their waste in the village common areas and the otherwise beautiful village bore a littered look. As a result of the interventions, all the families now collect 100 per cent of their non-biodegradable waste, to be handed over to the waste collectors once a week.

Community-level projects The Foundation's Dolvi team collaborated with the district and government machineries at the ground level to facilitate community ownership in community-level projects. A 'community needs' assessment was conducted at both the community and gram panchayat levels and various issues, such as rural infrastructure facilities, school upgrades and health care for mothers and children were identified. Gram panchayat was summoned and a resolution was passed to carry out projects through CSR initiatives. The gram panchayat and the foundation agreed to collaborate and share resources and management to complete the projects at the village level. In one instance, the need for individual toilets (at the family level) was identified by the GP and discussed with all members of the GP in order to develop a process and monitoring system for effective implementation. Gram panchayat was directed to approach the panchayat samiti in order to obtain available funds for the construction of toilets.

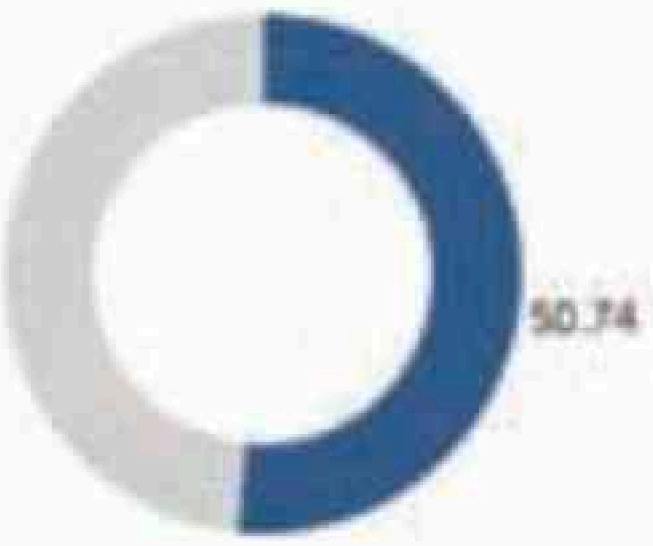
The realisation of members' engagement and sense of ownership influenced the achievement of 100 per cent toilet construction in identified villages. This resulted in the gram panchayat being further empowered to understand their power structure and resource utilisation. Eventually, the drinking water supply issue, efforts to increase domestic water, as also pathways for farmyard-like facilities were developed through collaboration between gram panchayats and communities. Two gram panchayats, Wadkhal and Dolvi, have agreed to go through the ISO process for gram panchayat in order to improve their services and standards. The ISO process was facilitated by the foundation team. As a result, Wadkhal gram panchayat received the ISO certificate and gram sabha has been formalised to address local issues. JSW Foundation worked on drinking water, school improvement, SHG member income generation, as well as improving community health care services. ◆

17 PARTNERSHIPS FOR THE GOALS

Country Rank

117/165

Score



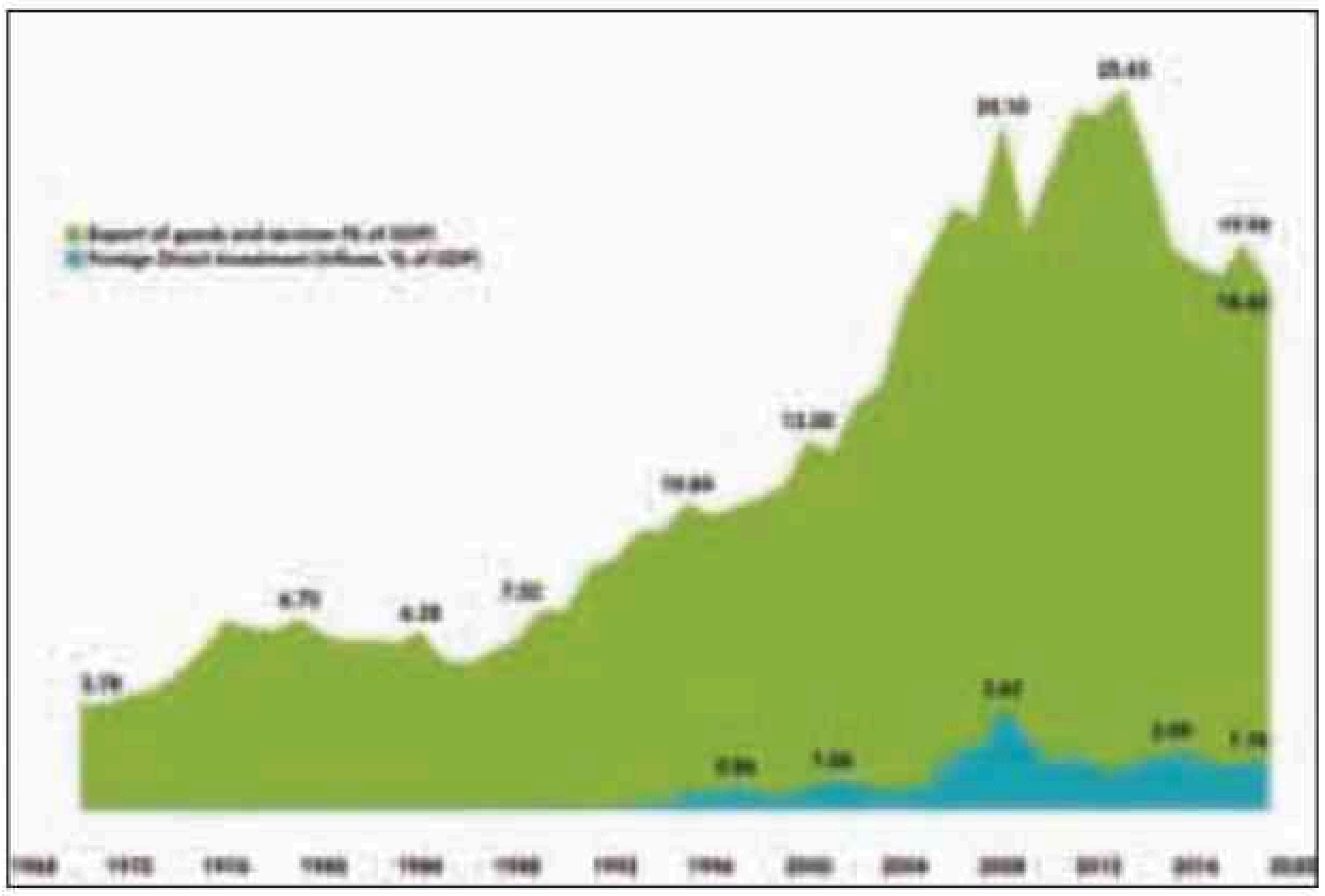
UN Dashboard Status

Major challenges ●

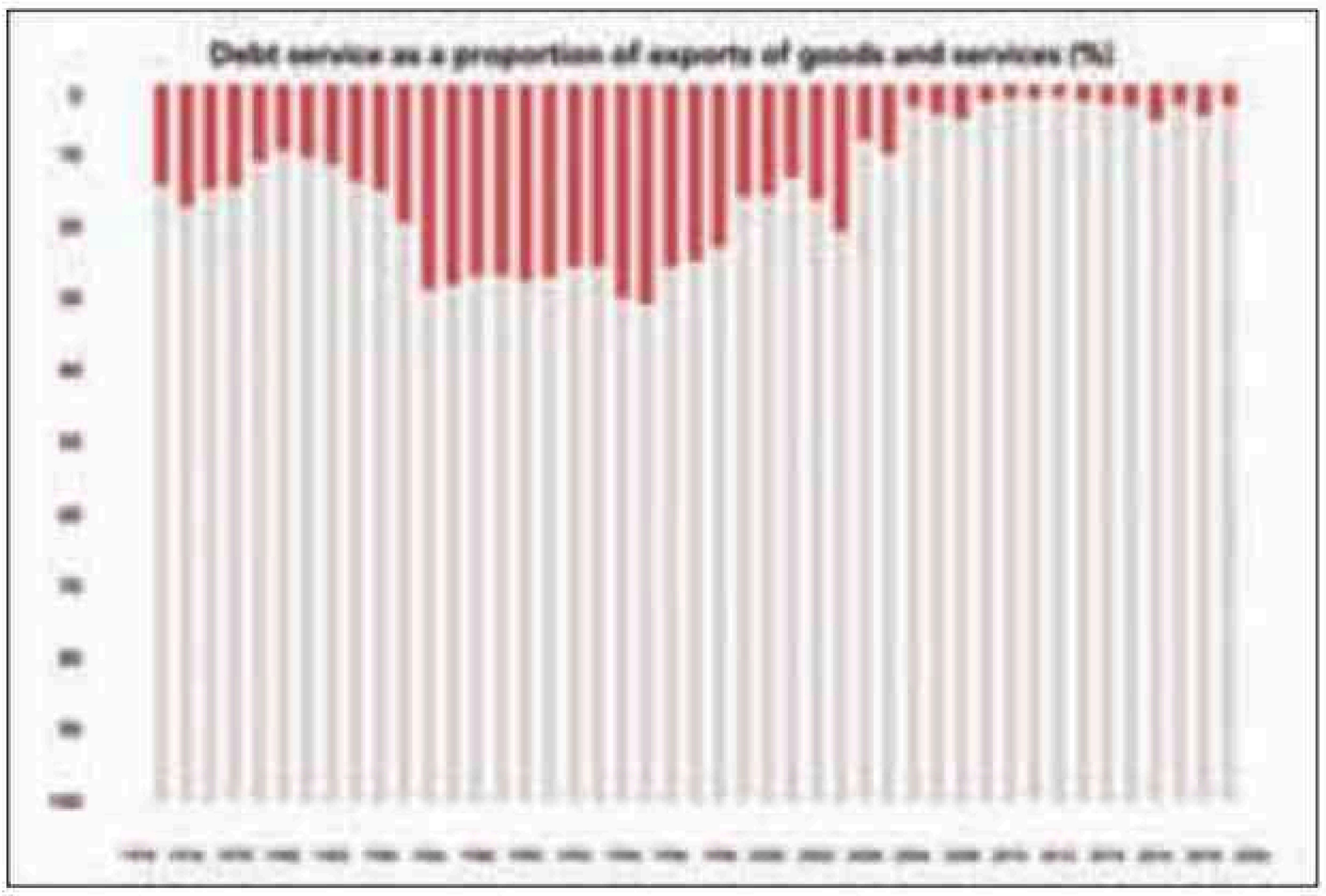
Trend

Stagnating →

Investments



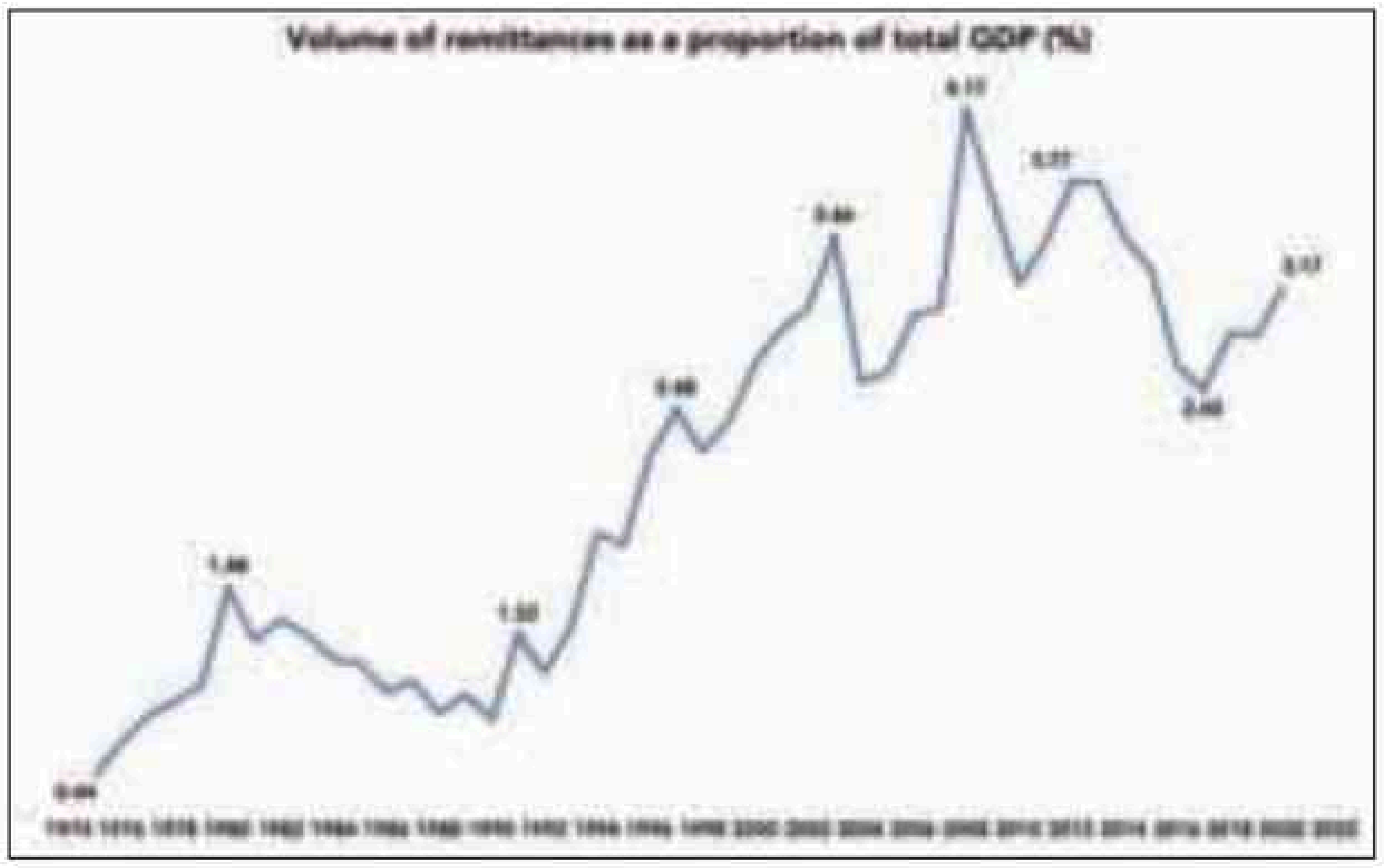
Global exports play an important role in strengthening a nation's financial capabilities and help facilitate international developmental partnerships. Since 1968, the contribution from the export of goods and services to the GDP grew significantly, reaching an all-time high between 2012 and 2016, following which it has seen a steep fall. Foreign Direct Investment (FDI) also show a similar trend, with FDI contributing 3.62 per cent of GDP in 2008, and then falling to 1.76 per cent of GDP in 2020.



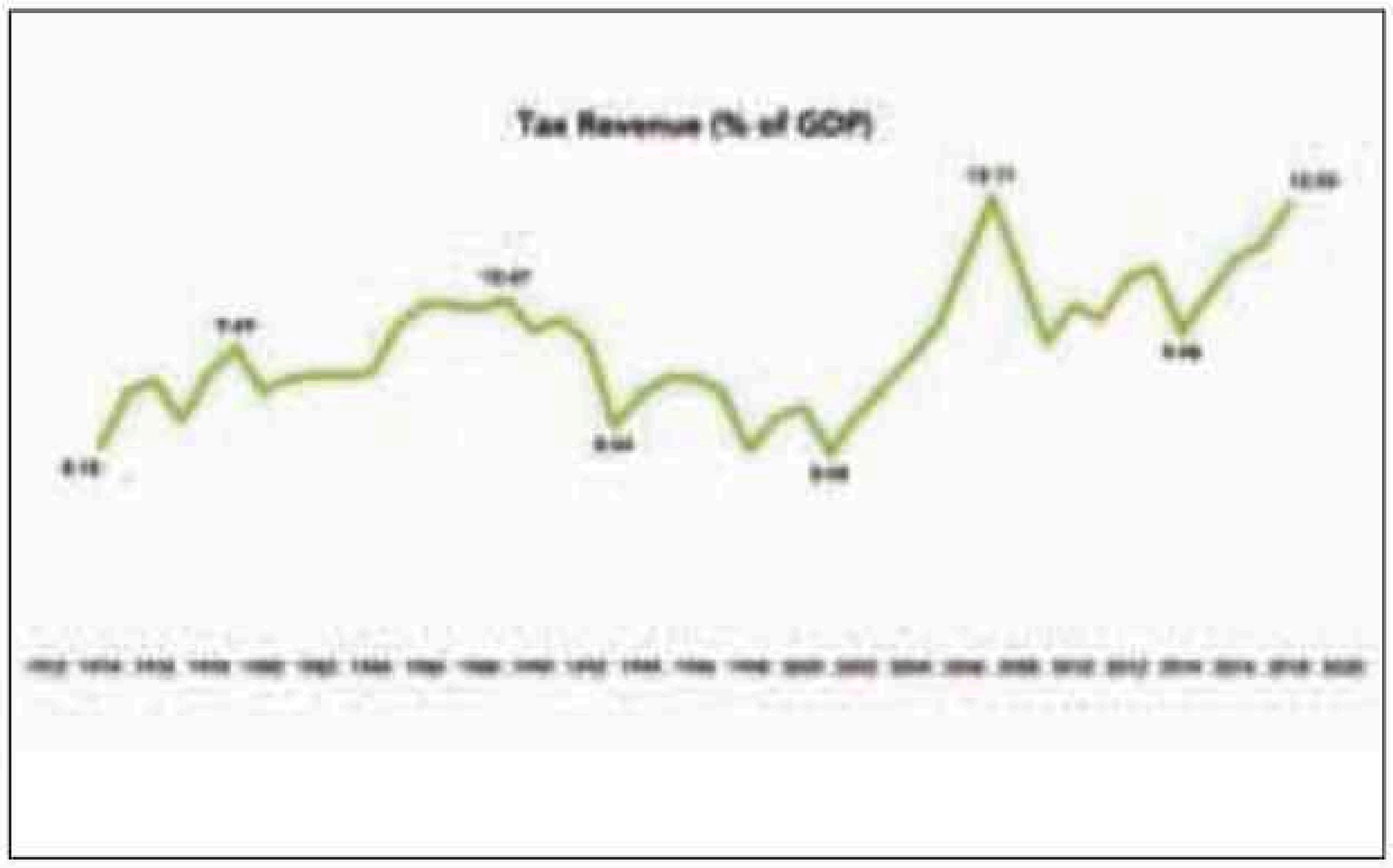
Debt service is an excellent index that assesses a country's international finances. A country's debt service ratio is the ratio of its debt service payments (principal + interest) to its export earnings, with a low ratio indicating healthier finances. India has maintained a low debt service to exports ratio with an average of 2.78 per cent over the last decade as indicated by World Bank and Reserve Bank of India data.

Remittances and Taxes

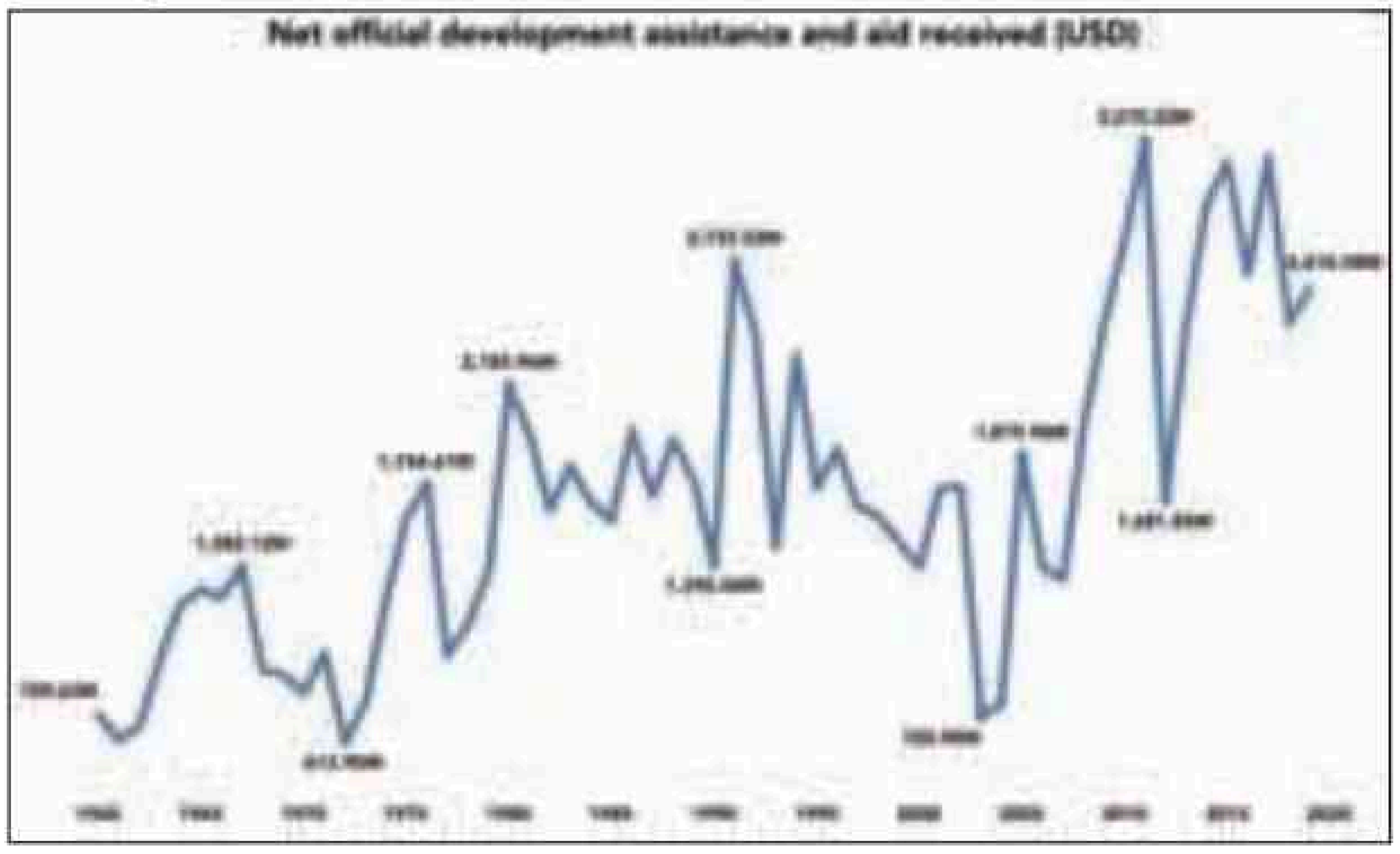
Alongside exports, other contributors to GDP include tax and remittances. The latter is a non-commercial transfer of money by a foreign worker, a member of a diaspora community or a citizen with familial ties abroad, for household income in their home country or homeland. In India, the contribution of remittances to GDP has risen drastically over the last four decades, reaching a high of 4.17 per cent in 2010. An increase in remittances is advantageous to Indian economy and has a positive impact on the GDP.

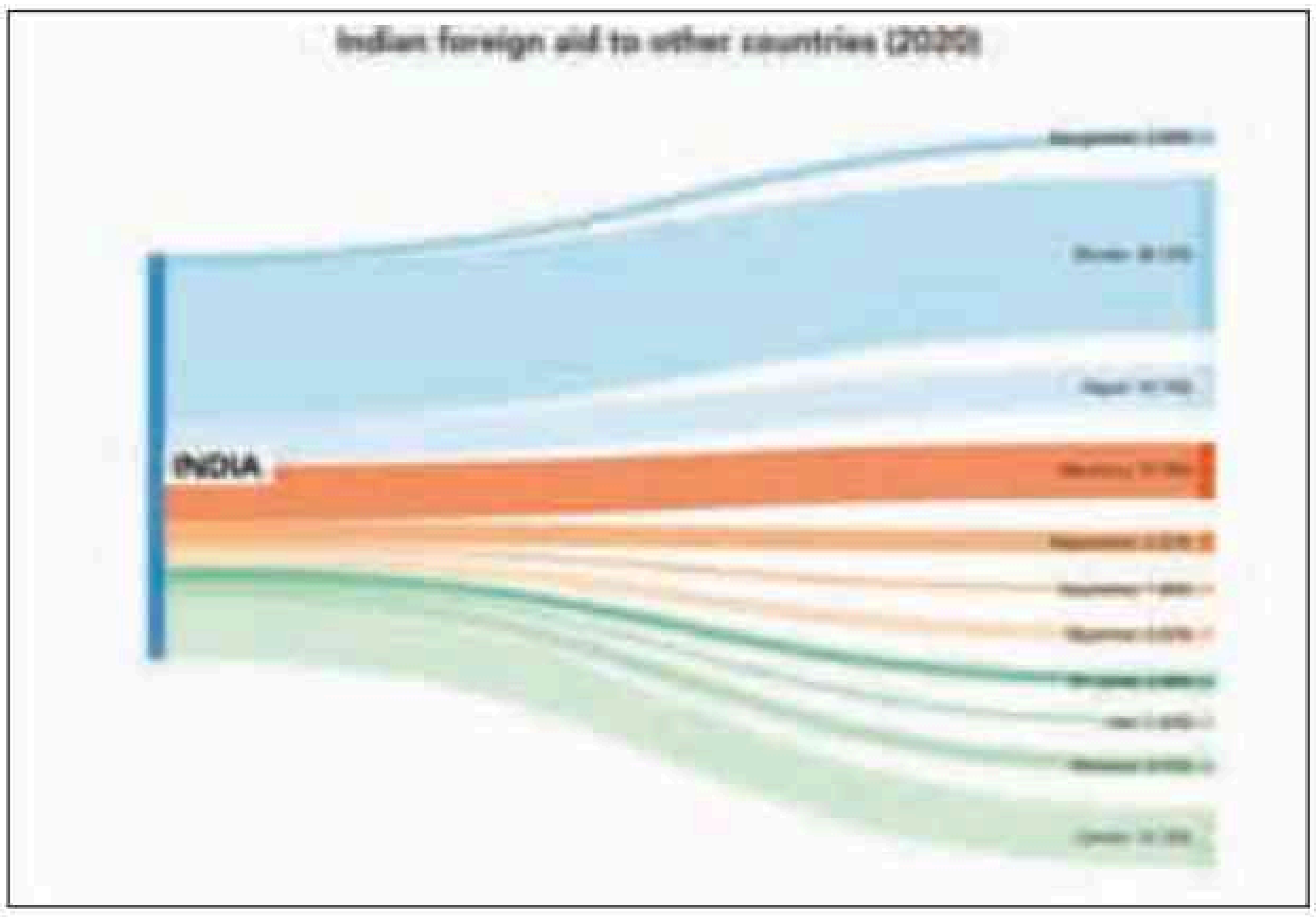


Tax revenue also helps strengthen domestic resource mobilisation. In 2019, 12.03 per cent of the GDP came from Tax Revenue. Tax revenues above 15 per cent of a country's GDP are crucial for economic growth and, ultimately, poverty reduction. India has shown a slow trend to improvement to achieving this goal.



Foreign Aid – Received and Given



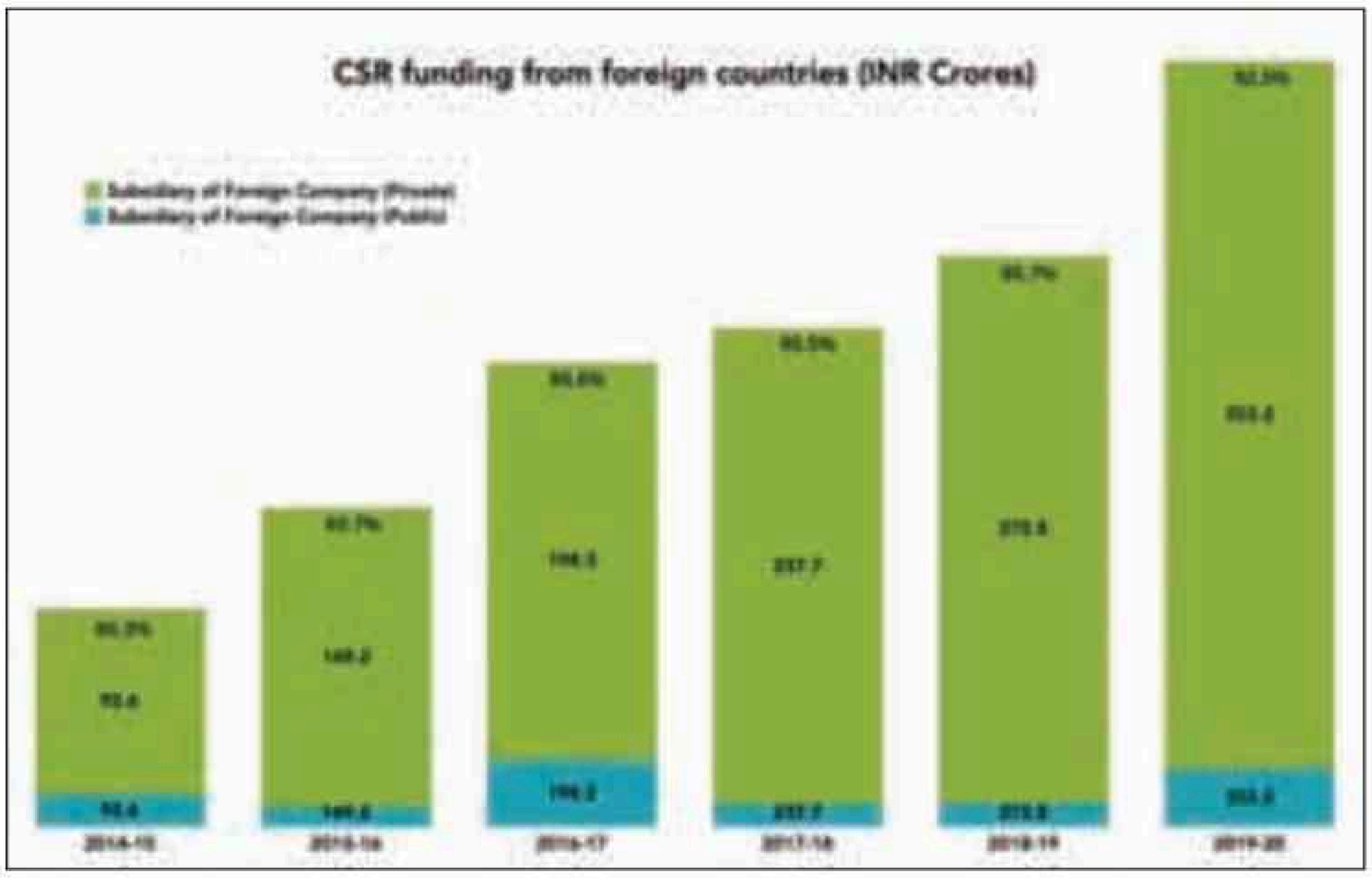


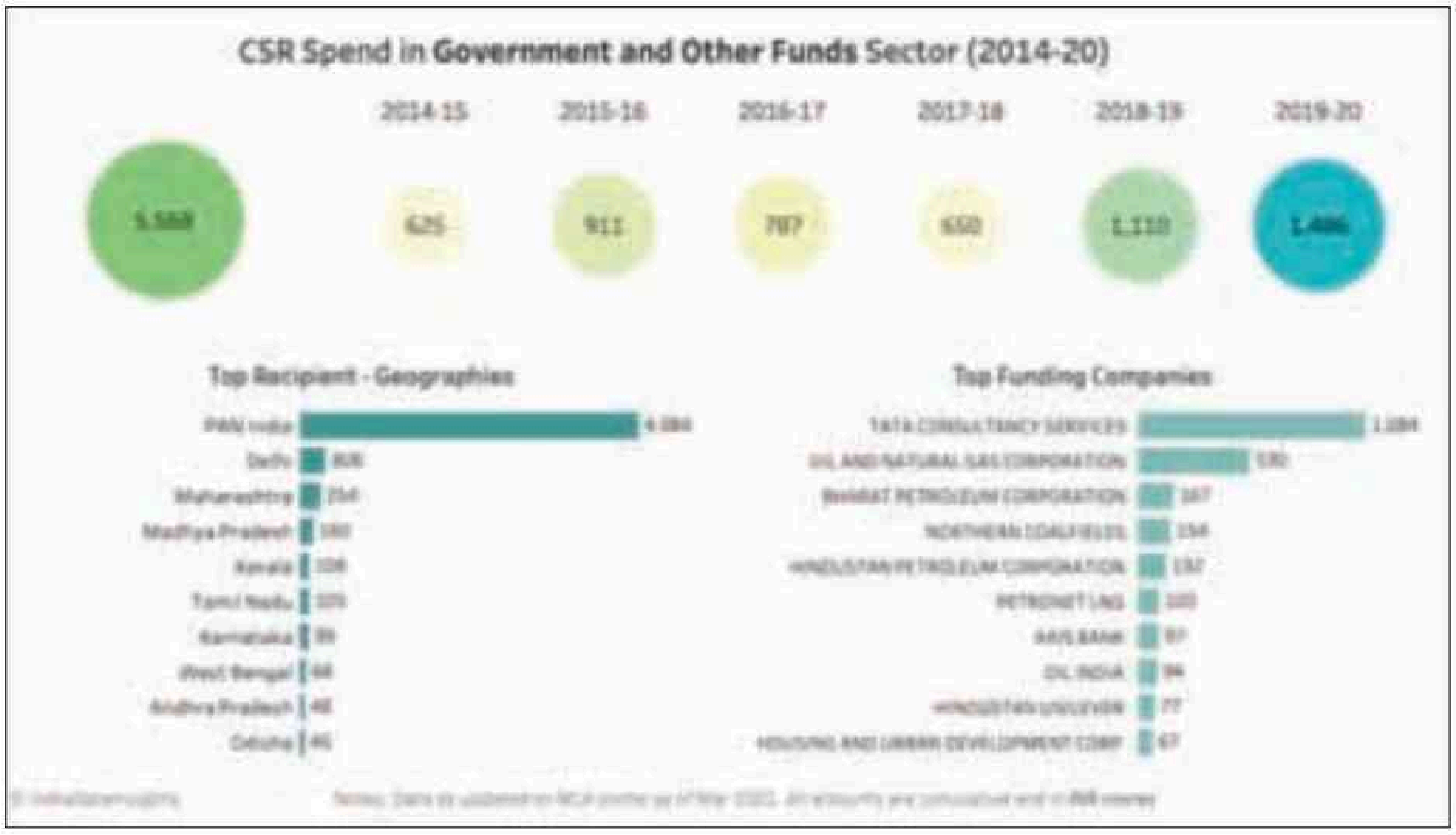
Besides these contributing factors, foreign aid also serves as a significant source of funding for a nation. Over the last six decades, foreign aid reached an all-time high in the early 2010s, at 3,270.22 million, following which it has remained erratic, reaching 2,610.58 million in 2019-20.

While India has been on the receiving end of foreign aid, it also contributes to the foreign aid of developing countries. Majority of funds go to neighbouring countries such as Bhutan, Mauritius and Nepal. Other countries to receive aid from India include Afghanistan, Maldives, Myanmar, Sri Lanka, and Bangladesh.

CORPORATE CONTRIBUTION

Corporate funding also contributes significantly to a country's economy, with CSR funds playing a vital role in the nation's development. CSR funding from foreign companies has witnessed a steep rise over the past five years, with the contribution from foreign companies through CSR having tripled from 2015 to 2020. However, the proportion of contribution made by public companies to private companies has remained relatively the same since the inception of the CSR law in 2014.

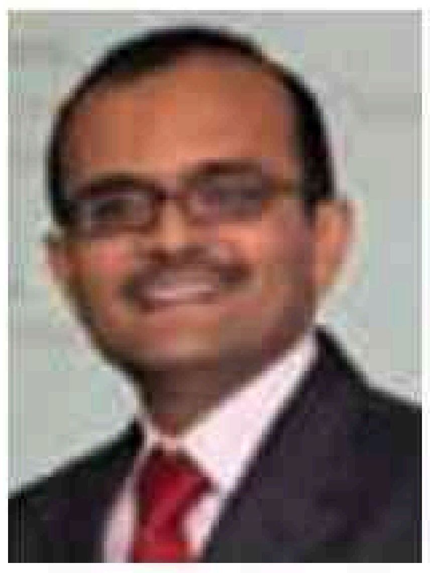




CSR investments in government sectors and other funds also rose 237% between 2014 and 2020. Nearly one-fifth of these contributions have been made by TCS. ONGC, BPCL, Northern Coalfields, and HPCL are the other noteworthy corporate contributors. While nearly two-thirds of the funding was received for pan-India projects, Delhi, Maharashtra, Madhya Pradesh, Kerala, and Tamil Nadu are the top 5 geographies that received significant CSR funding in these areas.

Billion Social

Connecting impactful technologies to last mile access through livelihoods for many



DR CHINTAN VAISHNAV

Billion Social is an experiment that has demonstrated that it is possible to meet some of the most critical human needs like healthcare while meeting two conditions: the solution must be a world class, affordable innovation and its distribution must generate respectable livelihoods.

The tale begins in February 2020 when Covid-19 was yet to engulf the globe. Five of Billion Social's founders, with their disciplinary training spanning medicine, material science, medical devices, pandemic modelling, global health, and frugal engineering, were keenly tracking numbers coming out of Wuhan and Italy. They were sure that this would soon be a global pandemic and were determined to do their bit to help.

The efforts gave birth to Billion Social Masks (BSM), a start-up that was designed to meet two conditions: to make safe, comfortable, reusable masks and affordable masks with world class technology and to do so while enhancing the livelihoods of many. The result was SHG-95®, a mask that encloses a standard tested filter with 95 per cent+ particle and 99 per cent+ bacterial filtration inside a highly standardised cotton sleeve stitched across India by many women Self Help Groups (SHGs).

The result was more than 125,000 hours of work for 400+ artisans across 16 states, earning them a total of ₹50 lakh. The 500,000 masks they made have protected citizens in all states of India, and some in the UK, Australia, and USA. More than 60,000 metres of cloth has been procured from weavers and indirect employment has been produced for suppliers providing yarn, washing services, factories manufacturing elastic ear loops, packaging materials, printing, and other services. Almost 100,000 masks have been distributed during vaccination drives and through CSR initiatives.

Their open business model with no hidden markups, and pricing that allows for covering costs while passing as much as possible to the artisan without overcharging the end user, has invited many established groups to partner with them. Most notably, Tata Power Community Development Trust, Tata Steel Foundation, SEWA Cooperative Federation, Sankalpa Rural Development Society, SEWA Bharat, Abhihaara, Gowma non-leathers, SAMHITA, Collective Good Foundation, Latent Heat2Comfort Technologies, UBER Stitch, and SELCO Foundation. Generous financial support came from Grand Challenges Canada under UN's Every Woman Every Child Initiative, IKP Knowledge Park, and BIRAC (Department of Biotechnology, Government of India).

What is behind the success of such a model? Arguably, a solid scientific foundation that produces quality and hence profit margin, combined with a socially conscious business model that distributes the margin more fairly. The sense of urgency collectively felt by the founders – led by Parisodhana Technologies that championed filter manufacturing – in February 2020 about the oncoming pandemic helped them experiment with performance testing various materials for mask-making early on. So much so that their first set of standards testing was successfully performed even before the first lockdown in India was announced in April 2020.

A few other factors were key to designing an inclusive business model. First, the high performance of the mask presented the possibility of sufficient margins that could be passed on to the artisans. Second, centralised production of the filter allowed for economies of scale. Third, distributed production of the cotton sleeve allowed for employing many artisans. The resulting business model was one where the participating groups agreed to a common Maximum Retail Price (MRP), for example, ₹90 per mask, of which ₹10 was guaranteed to the artisan stitching that mask. This meant that the artisan earned five times or more as compared to the ₹1.5-2 they would have earned for stitching a normal cotton mask. The rest went in materials, transportation, and the retailers' margins. If the artisan groups were ready to play retailer, they could keep the retailers' margins or use it to discount the masks to remain competitive. Only two aspects were non-negotiable: that ₹10 per mask must be given to the artisans, and the retail price must not exploit the end consumer – because these stakeholders were the very reason this start-up exists.

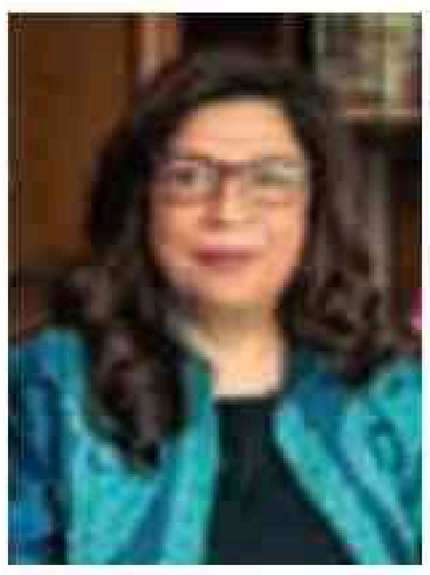
Has the journey been smooth for Billion Social Masks? No. Even after partnering with established groups, producing high quality at scale in such a distributed manufacturing setting was challenging. Close to 85 per cent of the masks were rejected by their quality control. It took the persistence and hard work of several master trainers to cultivate the appreciation for what is good quality and how to achieve it. The rejection rate today is less than 10 per cent.

The author is Mission Director, Atal Innovation Mission, NITI Aayog

Continued on page no. 273

No space for silos

Achieving SDGs needs disruptive partnerships with the private sector



DEEPALI KHANNA

The pandemic saw the world coming together in unexpected ways to provide immediate relief, mobilise resources and provide access to essentials. As we emerge from the pandemic, we have an opportunity not just to rebuild but to redesign our social and economic systems. For a radically different future, it is essential to share information and capital through unusual partnerships.

Together we travel far: Collaborations among those that have shared goals and complementary resources can leapfrog into enabling policies, capital investment, working business models, right-size tools and technologies, community-centric programming, and empowerment. The private sector is increasingly participating in this journey. For decades, the Conference of the Parties (COP) was inclined towards the public sector. However, the 2021 meeting witnessed increase in participation and leadership from the private sector. The idea that only governments and civil society members are responsible to drive social impact is passe. Increasingly, we see that corporates are leveraging and deploying their skills and assets in their partnerships with policymakers and civil society actors resulting in greater impact.

The ripple effect: It is key that globally philanthropists take the first step to proliferate additional investments and commitments. One of the Foundation's programme, Smart Power India (SPI) was created to extend reliable electricity to everyone; particularly marginalised and vulnerable communities. By refining the business case for distributed renewable electrification and deepening their technical knowledge of mini-grid systems and their impact on people's lives and livelihoods, they paved the way for the launch of a partnership with Tata Power, called TP Renewable Microgrid. This is a clear case of multi-stakeholder partnerships necessitated to deal with a challenge that is equally multi-dimensional. Once the market potential for green transition was realised, more partners indicated interest and the Global Energy Alliance for People and Planet (GEAPP) at COP26. The coalition aims to provide sustainable energy for one billion people within this decade. It includes institutions beyond philanthropies and includes actors from the private sector, development banks, and multilateral platforms. Organisations joining this call to action include the African Development Bank, CDC, the UK's development finance institution, European Investment Bank, International Energy Agency (IEA), International Renewable Energy Agency (IRENA), UNDP, US International Development Finance Corporation, and USAID GEAPP will promote collaborations to enhance project development and new financing instruments to catalyse billions of dollars of additional annual investment in Distributed Renewable Energy (DRE) projects in underserved markets including sub-Saharan Africa, Latin America, and Asia. Philanthropy can indeed play the role of the pebble that creates the ripple.

Partnerships result in innovation and accelerated impact: There is a growing need to combine curiosity, innovative thinking, and daring, to forge new pathways for taking solutions farther and faster, beyond just executing existing solutions. This is another opportunity area for corporates to come in. An example of this is the partnership with Bangalore Bio-Science cluster and Tata Consultancy Services to indigenise diagnostics in India. This partnership saw domestic private sector players in the diagnostics ecosystem come together to produce key reagents and primers required to manufacture RT-PCR kits. The local manufacturing of reagents was scaled up and testing solutions in India were found to bring down the cost of one test from $61 to $0.6/test which is a 97 per cent decrease in the price. Since then, India has manufactured over 500,000 indigenous test kits per day, establishing a strong supply chain network for micro, small and medium enterprises and providing essential scientific support for meeting international quality standards on one digitised marketplace. Nearly 42 of India's 100 test kit manufacturers are part of this cluster today.

Impact stewardship: The challenge today is not only to discover solutions but to scale them as well. This applies to achieving SDGs too. How do we bring together philanthropic capital, market capital, private sector innovation, civil society, empowered communities, and government policy – to accelerate solutions and amplify their impact? The answer is creative partnerships, and the private sector can play a vital role. Wielding the power of technology, R&D capabilities, market and value chain creations, evolving consumer behaviours and in some case even nudging social and policy change. Corporate leaders today have the opportunity of an era to steward this commitment towards sustainability.

Looking at the increasing inequalities, demographic changes, and the devastating impacts of the climate crisis, solving the SDGs has never been more urgent. A glimmer of impactful corporate leadership has become visible and is here to stay. There is less than a decade between now and 2030, and there is, simply, no space for silos.

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The author is Managing Director, Asia Regional Office, The Rockefeller Foundation

PARTNERSHIP FOR THE GOALS
COLUMN

B Corps as the means for progress

These entities can work together to implement local and global partnerships towards SDG-17

Businesses are increasingly responding to 'grand challenges', or significant and complex global problems like poverty, hunger and climate change. This focus is especially relevant in India, where not only are the challenges arguably severe, but also opportunities lie in terms of both the will and skills of business leaders to address grand challenges.

Among the UNSDGs, SDG-17 is the key to the fulfilment of other social and environmental targets. It calls for revitalisation of global collaboration to meet other goals. For businesses, SDG-17 refers to calls for co-operation, alliances and other forms of joint action to address major issues facing the world.

Indeed, there are several forms of business alliances that work in different ways to address grand challenges. For example, many organisations report their social or environmental performance through ratings such as Dow Jones Sustainability Index (DJSI), and Corporate Equality Index. Businesses are also reporting their commitment to social and environmental causes in other ways such as adopting the global reporting initiative (GRI) or abiding by the 10 principles of the UNGC.

One such collaborative social movement that is gaining momentum in different parts of the world is that of certified B Corporations, popularly known as B Corps. Certified B Corporations are for-profit enterprises, whose business practices are certified by B Lab, a non-profit headquartered in the US. B Lab certifies firms based on the value they create for non-shareholding stakeholders, including employees, local community, and natural environment. To be certified, a company undergoes 'B Impact Assessment', a detailed exercise on the company's products/services, activities and practices. If the company scores 80+ on a scale of 200, it becomes eligible for certification. Then, they sign the B Corp Agreement. B Corp certification must be renewed very three years.

B Corp is often hailed as a global movement for responsible business. B Corps often participate in place-based 'B Local Community'. B Corps can use B Locals to create connections, increase their impact, and raise awareness about their missions. Additionally, B Lab is trying to build a 'B Economy' which involves not only B Corps but other players such as government and NGOs, who are needed for a thriving and inclusive economy.

At present, there are over 3,500 B Corps across the world, of which only seven are in India. This gap between the global numbers and uptake of B Corp certification in India is a significant opportunity for Indian businesses to make progress on SDG-17.

YOUTHIKA CHAUHAN

GARIMA SHARMA

Chauhan is Research Fellow, Imperial College London; Sharma is Faculty, Georgia State University

There are many benefits to becoming a B Corp. Businesses see B Corp assessment as an opportunity to learn and change their practices. Research suggests that both the certification and the process of assessment can influence companies to change their practices over time. In our research, we found that B Corps who were 'laggards' – with low scores in the assessment – changed their practices the most from one assessment to another, indicating that they wanted to catch up. Size, sector, and other such factors explained the change in practices over time.

For example, overall, larger B Corps were more likely to increase their performance from one year to another, possibly because they have the resources to invest in changing their performance. B Corp assessment and certification pushes businesses to adopt certain practices, such as allowing a week of paid volunteering for employees and using environment-friendly fuel and electricity options. The process of undergoing the certification helped the businesses to make environment-oriented decisions and attract like-minded talent to achieve their goals. These changed practices not only reinforced the business' commitment towards their mission, but also strengthened market-based benefits. For example, an Indian B Corp participating in the study attracted new customers, employees, investors, and such.

While there are several benefits that businesses can obtain from the B Corp certification and community, there are also some considerations they need to make. First, becoming a B Corp requires significant commitment in terms of financial costs and time in completing the B Impact Assessment. Partnering with academic institutions to involve student teams in the certification process is one way to overcome extensive resource commitment. Second, there is still limited awareness about B Corp certification and community in India. Pioneering B Corps in India will have to educate their audiences, including customers, investors, and partners, as well as raise awareness about the certification. One way to do so is to partner with universities, governments, and non-profits. Workshops, events, and consulting support for assessment may serve the business well in their effort to build awareness.

Despite these challenges, the global growth of the B Corp movement points to the benefits of the certification that is available in the community. B Corps can work together to implement local and global partnerships towards SDG-17. However, weighing the pros and cons of B Corp certification is important for business as they work towards addressing grand challenges. ◆

Together we win

Collaborations can be successful only if all the right partners are on board

TATA POWER

Energising tomorrow

Tata Power's Adhikaar Mitras imparting financial and digital literacy among local communities

Tata Power, an integrated power utility, spanning generation, transmission and distribution, also includes JVs with state discoms. It makes renewable energy from solar, wind and micro-grids too and serves several regions in the country, including underserved, remote areas. With a 31 per cent clean energy portfolio targeted to be 80 per cent by 2030, Tata Power straddles the entire gamut of responsible/ alternate sources services. It also offers solar rooftop panels and solar pumps, charges EVs, provides smart home energy management solutions and supports research and innovation in clean energy, storage and hydrogen technology.

The company collaborates with several strategic and grassroots partners to further regional development and responsible energy use, while also promoting green energy choices – both at institutional and personal levels. It has been collaborating with Clean Energy International Incubation Centre (CEIIC), IIT Delhi, IIT Madras, Social Alpha, ACT Accelerator, United Way, BIRAC and Billion Social Masks Collective, among many others.

Tata Power, in collaboration with World Business Council for Sustainable Development (WBCSD) India, had organised a global virtual event on 'Accelerating business action in line with SDGs, with focus on electric utilities' on 16 November 2021 to spearhead collective action and maximise progress. The event highlighted the key findings from WBCSD's report on SDG Sector Roadmap for electric utilities, which was released in March 2021. It brought together 11 global companies, with Tata Power representing India, to explore and develop a joint global vision on how the sector can best actualise and implement the SDGs through collaboration, innovation and leveraging its influence circles. Today, with a portfolio of 31 per cent clean energy, it now aims to reach 80 per cent by 2030. Tata Power is already committed to becoming carbon-neutral before 2045.

The Tata Power micro-grids are aimed at enabling affordable access to reliable and assured electrification in remote, underserved regions, beginning with Bihar and Uttar Pradesh. This is in partnership with Rockefeller Foundation and Smart Power Initiative India for enabling demand and market viability. The target is to reach out to underserved parts of rural India and set up micro-grids in 10,000 villages. Micro-grids require low investment, minimum installation space and little setting-up time. The project will power up rural India, unleashing the potential by strengthening local public institutions like schools, *panchayat ghars*, women-led businesses and collectives, micro-enterprises like *atta chakki*, oil expellers, rice hullers, milk chillers, agri-goods storage, RO water filtration units, etc.

Partners in change The company focusses on empowering community institutions and groups through better education, employment, employability and entrepreneurship enablers. Its key flagship CSR programmes include Anokha Dhaaga for empowering women and farmers collectives, Roshni Integrated Vocational Training Centres, Adhikaar for enabling access to state social security schemes, Club

Enerji for developing conservation champions, Arpan volunteering platform, Mahseer conservation activities and Tree Mittra for furthering region-appropriate native species plantations and bio-diversity restoration. Through its Tree Mittra programme, over 850,000 saplings have been planted in the year 2021. In 2020-21, Tata Power's CSR outreach had positively impacted 4.6 million lives in the 60 districts of 17 states, while actively contributing to nation-building. The vision is to impact over 100 million lives through direct and indirect means by 2025-26 through corporate citizenship efforts.

The factors that have enriched and advanced Tata Power's journey are its partners in change – both global and national – who help the company introduce and execute approaches for inclusive technologies. With a strong focus on SDG 17, Tata Power Community Development Trust (TPCDT) has undertaken programmes in partnership with government and non-government institutions. More than 40 not-for-profit partners have been supported through TPCDT, with a shared vision to achieve larger sustainable goals in regions of our operations.

The power of collective efforts was especially found impactful during current pandemic times. The company supports over 2.6 million community members and more than 150 public institutions in underserved areas, as also about 65 operating sites. It has strengthened the abilities of PHCs, sub-centres, local hospitals, district administrators, police, temporary Covid relief centres, CSR teams, volunteers, SHG women and others in the local ecosystems. It has also supplemented oxygen support, protection gear and medicines, across affected neighborhoods. There was an active contribution from women's SHGs of the Anokha Dhaaga programme in making and donating SHG-95 masks and other protection support – also enabling wages and livelihoods for the women during tough times.

Tata Power group has also promoted inclusivity as a part of its value chain, engaging many semi-skilled/unskilled women under its Abha programme in Delhi, Odisha and Mumbai. This shared value programme supports community lives and livelihoods, leverages technology as a tool and upskills women to serve as 'community change agents' not just for electricity metering, billing and collections, but also for driving ethical and transparent energy use and breaking the cycle of electricity thefts. These groups of women also serve as *adhikaar mittras* to further financial and digital literacy, while embedding progressive social behaviours into their communities.

Targeted efforts towards decarbonisation, leveraging technology and innovation for inclusive growth and enabling clean energy revolution underscores the company's actions for advancing SDGs 1, 4, 7, 8, 9, 10, 12, 13 – all propelled forward through strong partnerships (SDG-17).

"Team Tata Power is committed to harness the potential, experience and resources as an integrated power utility organisation – to serve evolving stakeholder needs and further the nation's growth agenda," says Praveer Sinha, CEO & MD, Tata Power Co. "It will continue to strive to achieve new and higher grounds in the use of clean energy and create value for the society and regions it serves". ◆

EMBASSY GROUP

Doing more together

With today's world increasingly interconnected, businesses have the capacity to play a vital role in transforming people's social, cultural and economic lives, while working in partnership with the government and NGOs. Creating a more inclusive economy and reducing large-scale poverty in a country such as India can be undertaken hand-in-hand with a company's own profit-generating approach.

Under the CSR mandate, Embassy group nurtures and contributes to the economic, social and environmental development of the communities around where the group operates. Underpinned by the philosophy 'together we can do more', Embassy has created a unique 'corporate connect' programme, which champions collective action for increased social impact through partnerships with their corporate occupiers.

The company's corporate connect programme, launched in 2017, aims to bring together the 200+ corporate occupiers of its business parks with a

Partnering together: Embassy joins hands with corporates to build schools shared vision for our communities. A strong, aligned focus in partnering together, identifying innovative solutions, executing projects and bringing in the involvement of stakeholders is the path the company sees towards sustainable impact. Till date, Embassy has partnered with 34 corporates for 68 projects in the spaces of educational infrastructure, public infrastructure, health and Covid-19 relief.

One of the most important aspects of implementing large scale impact programmes is the partnership amongst various organisations and sectors, leveraging strengths of each partner to deliver the optimum result. The partnerships help increase the circle of influence, bring in organisations, which are not yet fully onboard into active participation and increase the multiplier effect. This is the most effective way of ensuring maximum participation and systematic contribution, rather than individual efforts, which risk being disconnected and dissipate without significant impact on ground.

Its corporate connect programme is built on Embassy group's existing relationships with Embassy Office Parks occupiers and aims to extend them beyond the business sector and into the area of social impact in the areas around the office parks. The company implements this in a number of ways. Firstly, Embassy invests in relationship building through forums, sharing information and expertise and employee engagement activities to clean up areas around office parks and foster a sense of shared responsibility for community development. The company also looks to collaborate on CSR projects in government schools and offer its partner corporates a portfolio of infrastructure and education investment opportunities. These can be tailored to suit a variety of CSR mandates, and corporates are often involved in long-term educational programmes or construction projects.

By working together to achieve progress on large issues such as education, the health infrastructure in our country and gender inequality, Embassy has learned that companies can help the government and its citizens, through their CSR initiatives, reach the scale and impact required to lift millions of Indians and people around the world out of poverty. As companies have recognised the challenge of promoting social change as being beyond the scope of a single organisation, identifying common mandates for collaboration is the key for ensuring effective implementation of CSR initiatives.

Plenty of advantages The benefits are numerous – the main one being the extension of reach and impact. Further, there is a less chance of wasting resources with companies bringing greater efficiency to the table and learning from each other's mistakes. There is greater encouragement of innovation, creation and bedding down of successful and replicable models and, finally, harnessing the various strengths and skill sets that each company boasts.

Corporates working in isolation of government departments and agencies, however, prove to be less effective. Embassy has found that alignment with the government maximises value for underprivileged communities and the environment, avoiding a duplication of efforts. In many cases, the government also has existing networks, infrastructure and has carried out needs based assessments on the ground. Utilising their expertise ensures greater efficiency. While executing CSR campaigns, companies invest a great deal of time in identifying and selecting beneficiaries – supporting government programmes, which are often more credible, saves precious time and effort.

While creating a platform for corporates to collaborate, Embassy, along with several other corporates, approached the government of Karnataka's department of education, to augment the ease of working with the government. The entire process was collaborative, with Embassy being allowed to provide a lot of input into the creation of the NammaShaale-NannaKoduge app. This app will generate greater transparency for donors, while serving the needs of government schools. For donors, they will have the option to select which gap they would like to bridge, whether it is in materials or monetary donations, thereby producing a clear process for corporates to conduct their CSR initiatives, in tandem with the government's larger mandate.

Corporates are able to create greater value for those they aim to impact, while contributing innovative solutions and skilled manpower to existing government schemes and programmes. Initiatives such as the NammaShaale app will enable greater corporate participation with the government. Further, this model can be applied across India.

Embassy's corporate connect programme is a model that can also be replicated as collaboration in the spaces of CSR can be encouraged within office parks, associations, consortiums and by the government. ◆

PERNOD RICARD INDIA

Partnerships for good governance

The importance of effective citizen-centred governance has not only been highlighted in the light of the Covid-19 pandemic, it has been one of the distinguishing benchmarks of government response, in saving lives and ensuring the delivery of essential public services. The good quality of public service delivery is all the more important when one considers the large disparities between poor and non-poor, with the former suffering more from weak services, as they cannot access those from the market, observes International Growth Centre.

In India, despite efforts to render services and information more accessible through online tools, the delivery remains slow, owing to a host of reasons mired with bureaucratic hurdles. With low levels of transparency and accountability, the system also leaves little room for capturing citizens' needs. According to the

UN Sustainable Development Goal 17: Partnership for the Goals, it is vital to bring governments, civil society and the private sector together to mobilise all resources for a more efficient and inclusive public governance. Pernod Ricard India envisions public-private collaborations as one of the integral methods of driving socio-economic development, at scale. With a multi-stakeholder ecosystem built on the essence of partnerships, public service excellence in key needy geographies can be made more transparent, accountable and efficient.

It is with this vision that the Good Governance Associates (CMGGA) programme of the chief minister of Haryana was launched in 2016. Partnering with Ashoka University, the chief minister's office of the Haryana government and other corporate funders, the programme created a unique fellowship model. It relies on experiential learning, which recruits, trains and places 25 young professionals within 22 district administrations, as representatives of the chief minister to drive good governance.

New policies and schemes The Pernod Ricard India Foundation programme supports the work of four associates in the districts of Palwal, Panchkula, Charkhi Dadri and Bhiwani. With a three-fold mandate, the fellows take part in the conceptualisation of new policies and schemes, streamlining execution on the ground and re-engineering governance processes. In 2020, the programme has impacted the lives of 983,765 citizens in the thematic areas of women's safety, child and maternal nutrition, skill building, digital education, inclusion and public service delivery. Recognised by NITI Aayog and national media, the programme drives transformation through research, planning and execution, community advocacy and evaluation.

The Haryana CM's initiative helped 330,909 students to get e-learning access amid Covid-19. Also, 548 women were supported at one-stop centres against abuse and harassment. As many as 95,051 families were issued parivaar pehchaan patra and 5,53,412 citizens availed services through last-mile access programme (antyodya saral). To add to that, 3,700 youth were trained throughout the state.

This unique corporate-university-government partnership also brought the best of corporate systems and processes to accelerate digital transformation. One of the key successes in the past year has been the successful digitalisation of schemes and services as part of the antyodaya saral online platform. Ashoka University was at the forefront of academic research and training and provided a dynamic and evidence-based framework to the young associates, allowing them to make well-informed decisions and lead the transformation of public administration.

Programmes such as CMGGA have proven themselves to be valuable while looking at resolving social problems and creating tangible change. A key to the replicability of such efforts is the development of an open, multi-stakeholder consortium facilitating the participation of a large number of corporate, philanthropic foundations. This would not only generate a pool of funds, but also collective best industry practices, learning and approaches to take such programmes beyond a 'project-level' engagement mode to a mission level engagement with states.

Pernod Ricard India Foundation also launched The Child Rights Fellowship Programme in partnership with Ashoka University and the Delhi Commission for Protection of Child Rights (DCPCR) – a statutory watchdog body of the government of Delhi, focussing on driving the agenda of child welfare, development and protection in the National Capital Territory of Delhi. In less than a year, the programme has built an impact and credibility with multiple interventions in domains such as education, child protection policy, child health and nutrition, children shelter homes, protection of children from substance abuse, protection, and rehabilitation of children from begging.

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LABOURNET

Collaborate to make it possible

India's economic prospects are rising but the path to unlocking its massive potential has confounded global leaders. Challenges compound in a country as diverse as India. Cultural, linguistic and socio-economic differences pose a challenge: how can one address complex systemic issues at scale?

While the need for transformative action can be seen, one observes the private sector undergoing a tectonic shift too. Fuelled by climate catastrophe, Covid-19 and tremendous financial biases, corporate leaders have had to acknowledge that action is vital. They are now making bold, ambitious promises to ESG and SDG goals.

Driving sustainable systemic change at scale in India poses new and unfamiliar questions. When problems are multi-dimensional, only a collaborative effort can be effective. There's also the larger question – how does one inter-link such collaboratives to build ecosystems that can scale the impact across the country? SDG-17 is about partnerships for the goals and comes at the end of the list precisely because partnerships' role in scaling impact is well understood.

Collaboratives can be successful only if all the right partners are on board – corporate partners to provide the necessary funding and incubation support; local leaders to originate change from inside the community; and government leaders to drive improvements in policy that support scaling goals.

Sambhav Foundation's (a unit of Labournet) intervention in Vijayapura demonstrated a wide range of collaborations. While the focus was on strengthening the health system, the pathways to achieving it were grounded in solid partnerships. And, local government, non-governmental

Sambhav Foundation with the support of its partners waging a battle against Covid-19

groups and donor organisations came together to make it possible.

As the second wave of Covid reached its apex in the summer of 2021, India's already-frail health infrastructure had begun to break down. ASHAs (accredited social health activists) were the first line of defence and also the first to fall. They were overworked, under-incentivised and under-capitalised. Primary Health Centres often had just one auxiliary nursing midwife on duty. These centres were understaffed, under-resourced and not involved in the disease triaging protocol. Care, control, and containment in rural areas became untenable as the primary healthcare system components failed.

Sub-district hospitals were under-resourced, especially when it came to critical care equipment such as BiPAP ventilators. This led to mild cases progressing unnecessarily to severe levels. The sanitation in community health centres was lacking. It failed to achieve societal approval, leading to failures in the quarantine protocol, with the inevitable result that the pressure on tertiary care centres grew and panic-stricken patients travelled to cities. The number of deaths that could have been avoided climbed to unacceptably high levels.

Sambhav noticed rips in the tiers of the health infrastructure. If a country's healthcare works in vertical silos, it is a recipe for disaster. Instead of providing symptomatic solutions, a multi-level and multi-pronged approach was incepted. They brought together a diverse group of stakeholders. The process empowered existing health workers, bridging gaps in readiness and increasing community awareness.

Bridging infrastructure gaps

Any initiative to scale impact needs appropriate funding and support. Accenture's support made it possible to deploy additional health personnel at PHCs, which then helped in door-to-door screening, testing and triaging not just in the district but also sometimes crossing its borders. Nvidia stepped in to enable training for community health workers, ASHAs and volunteers, so that they could be upskilled in data entry and methods to build Covid vaccination awareness. ACT Grants made it possible to arm ASHA workers with triaging kits and deploy them in 66 panchayats across Vijayapura.

Akamai, Piramal Foundation, SLK Software, and the Rotary Bangalore West contributed life-saving ventilators and concentrators. The Centre for Non-Formal Education (CNFE) also collaborated to bridge infrastructure gaps. Vijayapura became one of the first four districts in Karnataka to reach 100 per cent first-dose coverage, thanks to support from Accenture, State Street and Give India.

Partnership with local community leaders was instrumental in mobilising the effort on the ground. Volunteers from within the community joined hands with ASHA workers to grow their capacity. Gram panchayat leaders and the district administration were part of the planning and implementation. "A well-organised team of medical representatives, deployment of infrastructure and training, organised by Sambhav Foundation has given the people of Vijayanagara the support needed to win the battle against Covid-19," acknowledged the district collector Sunil Kumar.

A structured framework was adopted to tackle problems. The first line of defence, ASHAs, were trained and armed with equipment to capture health vital signs data. Swab testing and effective triaging by ASHAs stopped the spread. They were able to spread awareness about the vaccine and battle vaccine hesitancy in the same effort.

Skilled nurses, paramedics and technicians were deployed at PHCs and hospitals and trained to use and maintain critical care equipment correctly. Sanitisation workers were deployed to improve working conditions.

The result? A 97 per cent drop in active Covid-19 infections, 500,000 vaccinations and a reduction in deaths. And that was just the short-term impact. Vijayapura's public health framework was transformed and made more resilient. This long-term impact and systemic improvement would have been impossible without an ecosystem of collaborators being created. This strategy needs to be reproduced across every district in India. Dramatic, transformative change is required to address India's complex and inter-linked SDGs. And dramatic change calls for a dramatic shift in how relationships are built, values shared and the scalability of impact understood. ◆

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to God and ask Him to give us the courage to love." Often when asked how much I should give, the response is 'Give till it hurts'. Azim Premji said: "I strongly believe that those of us who are privileged to have wealth, should contribute significantly to try and create a better world for the millions who are far less privileged." Tata Trusts owns two thirds of Tata Sons shares. Including this WHY in strategy, the HOW, Devi Shetty has brought the cost of a heart bypass down from an already competitive $2,000 to $1,200; Arvind Eye, Akhand Jyoti, and more, are providing cataract surgeries for $50, letting many who are blind see again. Akshay Patra delivers around two million free midday meals daily to schoolchildren. The list of such Indian largesse and competitiveness in providing loving care is long and commendable. It makes us severely proud. We are India, a nation second to none, do we see this?

Circling back, how do I find my WHY? Carl Jung said: "Your vision will become clear only when you can look into your own heart. Who looks outside, dreams; who looks inside; awakes." Buddha's awakening earned him the title 'The Enlightened One'. He called this awakening the beginning (the end Nirvana). Like many others including Mohammed and Jesus, his life was a persistence pursuit of transcendence over separateness, of merging our separateness (ego) with the ONE, that collective consciousness within which all experience exists. All spiritual leaders urge us to do so. As did Buddha, they all confirmed that life is short, so work on this diligently.

Currently, there has appeared a more appropriate new word, WOKE ie awakened to that which separates, as a person alert to injustice and discrimination in society, especially racism, though it also applies to sectarianism, gender identity, class differences, etc. Hooray for the recent Oscars in Hollywood that celebrated Black and Latino colours, LGBTQ sensibilities, disabilities (deaf actor was voted the best) etc. Empathy ruled.

So, WHO am I? To help answer this, once again, we look inside ourselves, and attempting to answer this age-old question, my first step would be to start moving from the head toward the heart.

Can we, as India's elite and successful corporate persons all over the world, and with pride and respect for our spiritual legacies, accelerate our own individual awakening and act in the interest of all, the public and society as a whole? Can we develop our own Indian corporate person WOKE, individually, and more importantly, do this TOGETHER?

And as we are WOKE, will a day come when we transcend all do good titles such as Charity, Philanthropy, Social Enterprise, CSR, Creating Shared Value, shareholder/stakeholder distinctions, SDGs, etc, and settle on a singular title, one that distinguishes us as a collective (awakened) ONE?

Yes, life is short. As Robert Frost's poem, a copy of which was on Sri Jawaharlal Nehru's desk, read: 'These woods are lovely, dark, and deep. But I have promises to keep. And miles to go before I sleep.'

And just before I do inevitably sink into that deep peaceful sleep, how, at that moment, will I measure my life? Will I be able to say: "Yes, I did understand my essence and did successfully answer the WHY of my corporate person existence. I fought valiantly to view all as ONE with no distinctions. And toward that aim I did my very best to answer the next questions of WHAT and HOW."

And where is THAT non-differentiating ONENESS we seek? It has always been within us, patiently waiting to be recognised and accepted, to be awakened to. For THAT is US, ALL is THAT, it is who we always were, always are, and always will be, ONE. THAT AWESOME ONE! ◆

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Another challenge was that of market linkages. When BSM created a business model that, over and above wages, passes on the retailer margin to the artisan who was willing to sell the product, they had assumed that artisans will eagerly grab these opportunities and sales would grow at the edges. On the contrary, they learned that building market linkages is not a strength of most artisans. In fact, the very reason artisans were attracted to BSM was their hope of getting market linkages. BSM had to thus take on the market linkage challenge while onboarding only as many artisans to whom wages could be guaranteed consistently. Here, a productive arrangement that emerged was this: a corporate could employ the women SHGs they supported as a part of their CSR in making SHG-95 masks that were then provided to the employees on their business side of the house, thereby forming a closed loop between demand and supply.

Can the Billion Social philosophy connect more of such impactful technologies to last mile access while producing livelihoods? Absolutely. There are many such opportunities across healthcare, water, agriculture, education, energy, and environment sectors. If one could only design the final form of such technologies to ensure that its core requiring sophisticated manufacturing is done centrally, but the rest can be done in a distributed setting where many closer to the last mile can be gainfully employed, one could achieve both reach and inclusion. ◆

In essence, I do exist. But, WHY?

How would I like to be remembered? What ought to be my legacy?

AJIT JHANGIANI

Though I can sink into much debate about my life having any meaning, I do know that my life experience is short, and sometimes unexpectedly even shorter. Within this brief experience, WHAT ought I to do, and HOW? How would I like to be remembered? What ought to be my legacy? Did I make a difference, possibly even move a needle, any needle? Did my existence have any value at all? In modern day terms, what was my impact?

Before answering that question, I ask: which came first, this existence or its essence? Assisting me are philosophers Sartre and Camus, but then even they differ starkly on this. In Sartre's (bleak) cosmos, first I exist, become conscious of my existence, and only then am I (condemned) to try and forge my own identity that I seek – my essence. As a free and responsible agent, I determine my own development toward this, through acts of my will, and this then determines HOW I act.

Now, is this thinking also true of corporates? Well, is a corporate a person? Yes, corporate personhood is an accepted legal notion. Corporate is a person, just like its separate, but associated, human persons (owners, managers, employees, etc). So, corporate has legal rights, and responsibilities, as enjoyed by any natural person. Conscious of this personal existence, does corporate also try and seek its own essence? Does it ask, 'WHO AM I? WHY DO I EXIST? WHAT do I do with this life? HOW do I do that?' Is this even the correct order of these questions?

As one such corporate (person), I do indeed enjoy some perks provided by society such as limited liability but these are balanced by economic and legal obligations, and certain responsibilities to society. This is the corporate person's Social Contract that CSR helps elucidate.

As a corporate person who is cognisant of my CSR contract, and wanting to fulfil the embedded social responsibilities in this contract, ought I not make available, and even leverage, all my corporate assets/capabilities/strengths in developing strategies that successfully provide the necessary social good for societal needs? But, HOW do I balance these with also investing in more profitable ventures, ones much needed for my sustainability and longevity? HOW much risk ought I to expose myself to in such a pursuit? Is it OK to lose money in the short term if society benefits from my actions in the long term?

The author is alumnus, Harvard Business School

Of course, I always want to do the best I can, but HOW do I Know I am doing such good, how do I analyse my social activity, how do I use enterprise type metrics, which I am more familiar with, for measuring this alleged social good?

CSR does want to help me here. So, sometimes painfully, relentlessly, and petulantly, CSR questions me, the corporate person, by suggesting I first ask the question WHY I am here. CSR says: 'If indeed you do exist, and are conscious of it, what is the self-essence that you have decided on?'

Since I have accepted that I am a free agent, HOW do I first decide this WHY of my corporate person existence from my own free will? As a corporate, in what way am I going to deliver upon my vision and mission and my embedded responsibilities? Even more so, how do I align this WHY, this purpose, with the individual purposes of my partners: founders, promoters, management, shareholders, vendors, government, community, families, etc?

Mark Twain had said: 'The two most important days in your life are the day you are born and the day you find out WHY." Fyodor Dostoevsky said: "The mystery of human existence lies not in just staying alive, but in finding something to live for."

To this point, and given the current rightful prioritising of DEI, Jackie Robinson (first African American to play in major league baseball) comes to mind. He had suggested that a life is not important except for the impact it has on other lives. Ramdas, aka Richard Albert, Harvard professor of psych in the 60s, who came to India in search of a less temporary higher consciousness, had concluded that life in its entirety is all relationships. So, isn't how I deal with all my relationships, my entire life, determined by what my essence is, my WHY?

Our Indian heritage, our culture, our very nature, provide many suggestions on such subjects. As early as 800BC, India granted similar legal personhood to guild-like Sreni that operated in the public interest. Most Indians do give. There are many names we have for such charity and goodness. Daan, Zagat, Tithe, a helping hand, love...and many more. Our Mother Teresa said: "True love is love that causes us pain, that hurts, and yet brings us joy, which is why we must pray

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